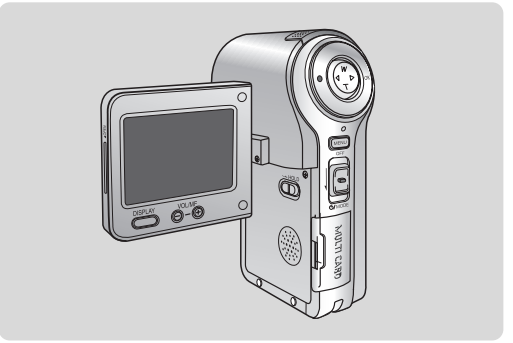
ENGLISH

# Digital Camcorder

# VP-M2050S(B)/M2100S(B)/M2200S(B)

**AF** **Auto Focus**
**CCD** **Charge Coupled Device**
**LCD** **Liquid Crystal Display**




**Owner's Instruction Book**

Before operating the unit, please read this Instruction Book thoroughly, and retain it for future reference.

SAMSUNG

This product meets the intent of Directive 89/336 CEE, 73/23 CEE, 93/68 CEE.

Use only approved battery packs.
Otherwise there is a danger of overheating, fire or explosion.
Samsung is not responsible for problems occurring due to using unapproved batteries.

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# Notices and Safety Precautions

## *Precautions on the CAM Care*

- ❖ Please note the following precautions for use:
- ❖ Please keep this device in a safe place. The device contains a lens that can be damaged by shock. Keep out of reach from children.

- ■ Do not place your device in a wet place. Moisture and water may cause the device to malfunction.
- ■ To avoid electric shock, do not touch your device or power cable with wet hands.
- ■ Do not use the flash close to another's eyes. The flash emits a strong light that may cause damage similar to direct sunlight on one's eyesight. Particular care should be observed if photographing infants, when the flash should be no less than 3 feet from your subject.
- ■ If the device is not working properly, please consult your nearest dealer or authorized Samsung service centre. Disassembling the device yourself may cause irrecoverable damage which will be difficult to repair.
- ■ Clean the device with a dry, soft cloth. Use a soft cloth moistened with a mild detergent solution for removing stains. Do not use any type of solvent, especially benzene, as they may seriously damage the finish.
- ■ Keep your device away from rain and saltwater. After using, clean the device. Saltwater may cause the parts to corrode.

# Notices and Safety Precautions

## *Notes Regarding COPYRIGHT*

- Television programmes, movie video tapes, DVD titles, films and other program materials may be copyrighted. Unauthorized recording of copyrighted materials may infringe on the rights of the Copyright owners and is contrary to copyright laws.
- All the trade names and registered trademarks mentioned in this manual or other documentation provided with your Samsung product are trademarks or registered trademarks of their respective holders.

## *Notes Regarding Moisture Condensation*

1. **A sudden rise in atmospheric temperature may cause condensation to form inside the CAM.**

***For Example:***

- Entering or leaving a heated place on a cold day might cause condensation inside the product.
- To prevent condensation, place the product in a carrying case or a plastic bag before exposing it to a sudden change of temperature.

## *Notes Regarding the CAM*

1. **Do not leave the CAM exposed to high temperature (above 60°C or 140°F).**
   For example, in a parked closed car in summer or exposed to direct sunlight.
2. **Do not let the CAM get wet.**
   **Keep the CAM away from rain, salt water, or any other form of moisture.**
   The CAM will be damaged if immersed in water or subjected to high levels of moisture.

# Notices and Safety Precautions

## *Notes Regarding the Battery Pack*

- It is recommended to use original Battery Pack that is available at SAMSUNG service centre.
- Make sure the Battery Pack is fully charged before starting to record.
- To preserve battery power, keep the CAM turned off when you are not operating it.
- If your device is left in STBY mode without being operated for more than 5 minutes, it will automatically turn itself off to protect against unnecessary battery discharge.
- Make sure that the Battery Pack is attached firmly in place.
- The new Battery Pack provided with the product is not charged.
  Before using the Battery Pack, you need to fully charge it.
- Do not drop the Battery Pack. Dropping the Battery Pack may damage it.
- Fully discharging a Lithium Polymer battery damages the internal cells. The Battery Pack may be prone to leakage when fully discharged.
- To avoid damage to the Battery Pack, make sure to remove the battery when no charge remains.
- Clean the terminal to remove foreign substances before inserting the Battery Pack.

* When the battery reaches the end of its life, please contact your local dealer.
  Batteries must be disposed of as chemical waste.
* Be careful not to drop the Battery Pack when you release it from the CAM.

## *Note Regarding a Trademark*

- The logos regarding DivX, DivX Licensed are the trademark of DivX, Network, Inc and can be used after contracting license.

# Notices and Safety Precautions

## *Note Regarding the Lens*

- Do not film with the CAM lens pointing directly at the sun.
  Direct sunlight can damage the CCD (Charge Coupled Device, the imaging sensor).

## *Notes Regarding the LCD Display*

1. The LCD monitor has been manufactured using the high precision technology. However, there may be tiny dots (red, blue or green in colour) that appear on the LCD monitor. These dots are normal and do not affect the recorded picture in any way.
2. When you use the LCD monitor under direct sunlight or outdoors, it may be difficult to see the picture clearly.
3. Direct sunlight can damage the LCD monitor.

## *Precautions Regarding Service*

- Do not attempt to service the CAM yourself.
- Opening or removing covers may expose you to dangerous voltage or other hazards.
- Refer all servicing to qualified service personnel.

## *Precautions Regarding Replacement Parts*

- When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer and having the same characteristics as the original part.
- Unauthorized substitutions may result in fire, electric shock or other hazards.

**Correct Disposal of This Product**
**(Waste Electrical & Electronic Equipment)**

**(Applicable in the European Union and other European countries with separate collection systems)**

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

# Getting to know your CAM

## *Features*

- **Integrated Digital CAM/DSC operation**
  An integrated digital imaging device that easily converts between a Digital CAM and a Digital Still Camera with comfortable and easy recording.
- **High Resolution Image Quality (Digital Still Camera)**
  Employing 2110K CCD Pixel, a maximum resolution of 2400x1800 is available.
- **x100 Digital Zoom**
  Allows the user to magnify an image up to x100 its original size.
- **Colourful TFT LCD**
  A high-resolution(210K) colourful TFT LCD gives you clean, sharp images as well as the ability to review your recorded files immediately.
- **Electronic Image Stabilizer (EIS)**
  With the CAM, you can reduce unstable images by minimizing the effect of natural shaking movements.
- **Various Digital Effects**
  The DSE (Digital Special Effects) allows you to give the film a special look by adding various special effects.
- **USB Interface for Data Transfer**
  You can transfer still images and video files or any other files to a PC using the USB interface.
- **PC Cam for multi-entertaining**
  You can use the CAM as a PC camera for video chatting, video conference and other PC camera applications.
- **Voice Record / Playback with vast memory**
  You can record voice and store it in the internal memory, SD, MMC, Memory Stick and Memory Stick Pro(Option) and play back the recorded voice.
- **Plus Advantage, MP3**
  With the CAM, you can play back MP3 files stored in the internal memory, SD, MMC, Memory Stick and Memory Stick Pro(Option). Enjoy your favorite songs with the MP3 files with the CAM.
- **PictBridge/DPOF Function**
  When you connect the CAM to a PictBridge supported printer and DPOF (Digital Printing Order Format) function using a USB cable, you can print your stored pictures without PC.

# Getting to know your CAM

## *Accessories Supplied with the CAM*

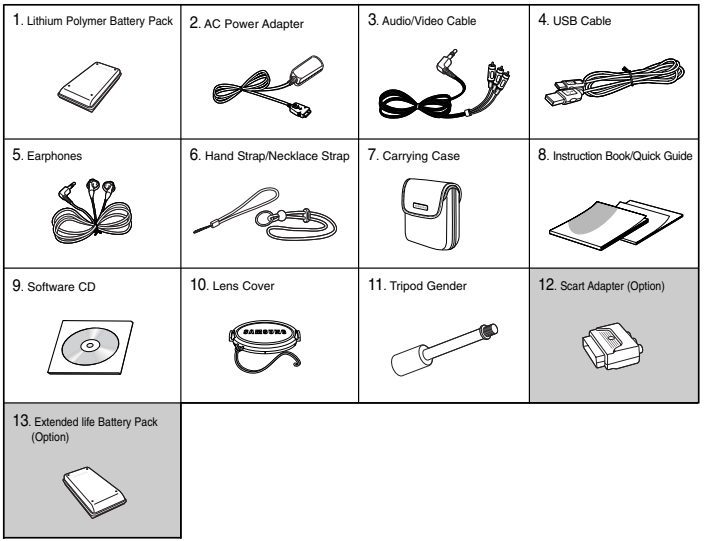
❖ Make sure that the following basic accessories are supplied with your CAM.

### Basic Accessories

1. Lithium Polymer Battery Pack
2. AC Power Adapter
3. Audio/Video Cable
4. USB Cable
5. Earphones
6. Hand Strap/Necklace Strap
7. Carrying Case
8. Instruction Book/Quick Guide
9. Software CD
10. Lens Cover
11. Tripod Gender

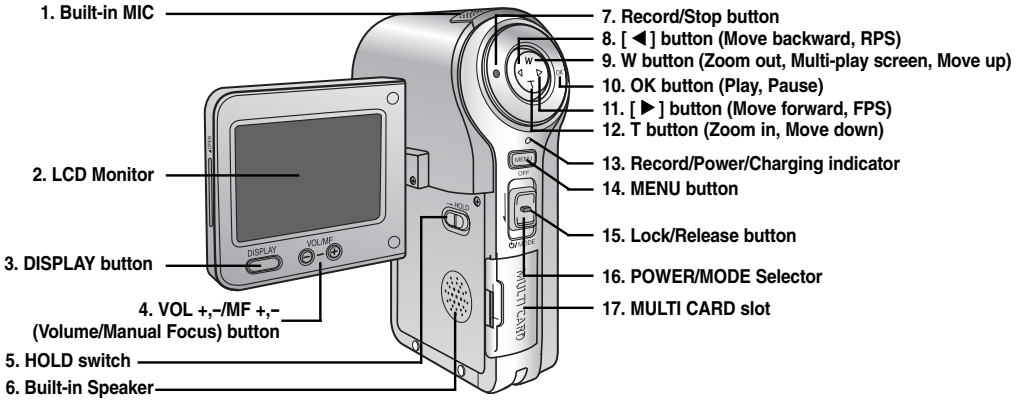
### Optional Accessories

12. Scart Adapter
13. Extended life Battery Pack



# Name of Each Part

## *Rear & Left View*




1. Built-in MIC
2. LCD Monitor
3. DISPLAY button
4. VOL +,–/MF +,– (Volume/Manual Focus) button
5. HOLD switch
6. Built-in Speaker
7. Record/Stop button
8. [ ◀ ] button (Move backward, RPS)
9. W button (Zoom out, Multi-play screen, Move up)
10. OK button (Play, Pause)
11. [ ▶ ] button (Move forward, FPS)
12. T button (Zoom in, Move down)
13. Record/Power/Charging indicator
14. MENU button
15. Lock/Release button
16. POWER/MODE Selector
17. MULTI CARD slot

**Usable Memory Card**

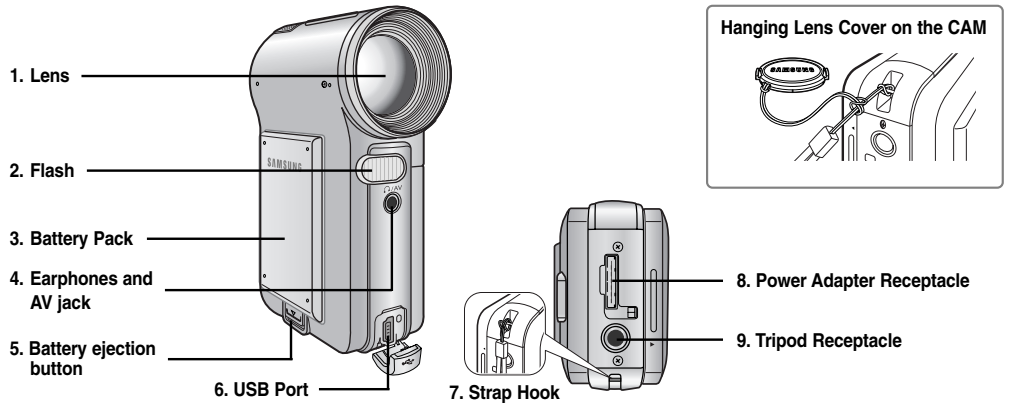
Memory Stick
Memory Stick PRO

SD

MMC

# Name of Each Part

## *Right & Bottom View*




1. Lens
2. Flash
3. Battery Pack
4. Earphones and AV jack
5. Battery ejection button
6. USB Port
7. Strap Hook
8. Power Adapter Receptacle
9. Tripod Receptacle

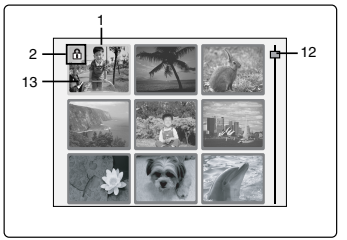
# Name of Each Part : LCD Display

## *OSD (On Screen Display in Video Record Mode/Video Play Mode)*

### Video Record Mode

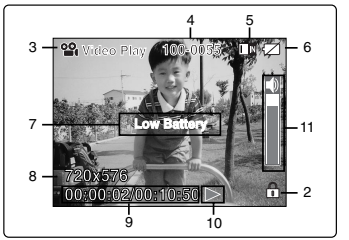
1. Mode indicator
2. EIS indicator
3. Program AE indicator
4. White Balance indicator
5. BLC indicator*
6. Focus indicator*
7. Counter
   (Elapsed time / Remaining time)
8. Record/Standby indicator
9. Effect indicator
10. Zoom in/ out indicator
11. Digital Zoom indicator
12. Battery life indicator
13. Memory type indicator
14. Image Quality/Size/Record Mode indicator
15. Warning and note indicator

### Video Play Mode




1. Current display indicator
2. Lock indicator
3. Mode indicator
4. Image counter (Current image)
5. Memory type indicator
6. Battery life indicator
7. Warning and note indicator

### Video Play Mode




8. Image size indicator
9. Counter
   (Elapsed time/Recorded time)
10. Operation indicator
    (Play/Pause/Stop/RPS/FPS)
11. Volume indicator
12. Scroll Bar
13. Multi Selection indicator

**Notes**

- Functions not indicated with * will be retained when the CAM is turned off.
- The OSD indicators of this product are based on the model VP-M2100S(B).
- The OSD indicators are based on internal memory.

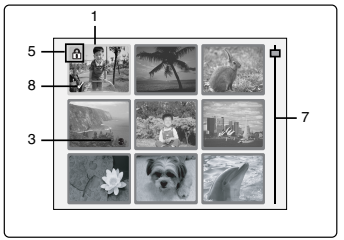
# Name of Each Part : LCD Display

## *OSD (On Screen Display in Photo Capture Mode/Photo View Mode)*

### Photo Capture Mode

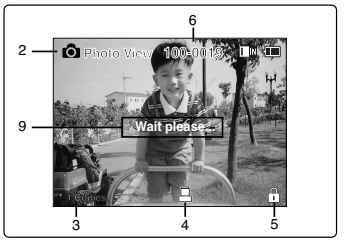
1. Mode indicator
2. Flash indicator
3. White balance indicator
4. BLC indicator*
5. Focus indicator*
6. Zoom in/out indicator
7. Battery life indicator
8. Memory type indicator
9. Image Size indicator
10. Warning and note indicator

### Photo View Mode




1. Current display indicator
2. Mode indicator
3. Number of print
4. Printer indicator

### Photo View Mode




5. Lock indicator
6. Image counter (Current image)
7. Scroll bar
8. Multi Selection indicator
9. Warning and note indicator

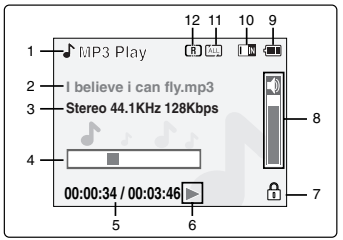
**Note**

✤ Functions not indicated with * will be retained when the CAM is turned off.

# Name of Each Part : LCD Display

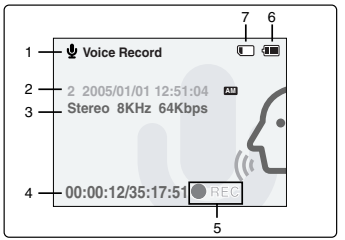
## *OSD (On Screen Display in MP3 Play Mode/Voice Record Mode/Voice Play Mode)*

### MP3 Play Mode



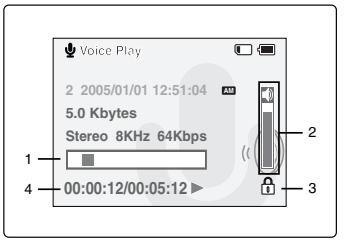

1. Mode indicator
2. File name/File format
3. Sampling Rate/Bit Rate
4. Progress Bar
5. Elapsed time/Full time
6. Operation indicator
7. Lock indicator
8. Volume indicator
9. Battery life indicator
10. Memory type indicator
11. Repeat All/One indicator
12. Random Play indicator

### Voice Record Mode




1. Mode indicator
2. File number/Date and Time
3. Sampling Rate/Bit Rate
4. Elapsed time/Remaining time
5. Operation indicator
6. Battery life indicator
7. Memory type indicator

### Voice Play Mode




1. Progress Bar
2. Volume indicator
3. Lock indicator
4. Elapsed time/Recorded time

**Note**

- Functions will be retained when the CAM is turned off.

# How to Use the Battery Pack

## *Battery Pack Installation / Ejection*

It is recommended you purchase one or more additional Battery Packs to allow continuous use of your CAM.

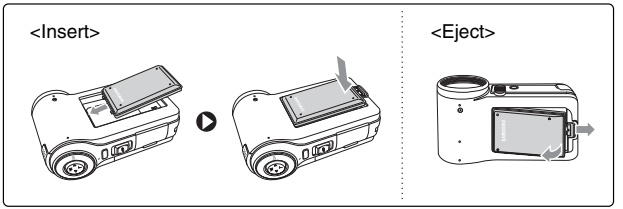
### To insert the Battery Pack

Move the Battery Pack into the groove until it clicks.

### To eject the Battery Pack

Pull the [Battery ejection] button to eject the Battery Pack.

| Battery |
|---|
| Standard Battery Pack |
| Extended life Battery Pack (option) |




Notes

- Clean the terminals to remove foreign substances before inserting the Battery Pack.
- If the CAM will not be in use for a while, remove the Battery Pack from the CAM.

Warning

- When you eject the Battery Pack from the CAM, hold the Battery Pack to prevent it dropping to the floor.

# How to Use the Battery Pack

## *Maintain the Battery Pack*

- The Battery Pack should be recharged in an environment of between 32°F(0°C) and 104°F(40°C).
- The Battery Pack should never be charged in a room temperature that is below 32°F(0°C).
- The life and capacity of the Battery Pack will be reduced if it is used in temperatures below 32°F(0°C) or left in temperatures above 104°F(40°C) for a long period.
- Do not put the Battery Pack near any heat sources (fire or flames, for example).
- Do not disassemble, process, press or heat the Battery Pack.
- Do not allow the + and – terminals of the Battery Pack to be short-circuited. It may cause leakage, heat generation, induce fire and overheating.
- It is recommended to use original Battery Pack that is available at SAMSUNG service centre.

# How to Use the Battery Pack

## Continuous recording time based on battery type

If you close the LCD screen, it switches off automatically.
The continuous recording times given in the table below are approximations. Actual recording time depends on usage.

| Time / Battery | Continuous Recording Time | |
|---|---|---|
| | LCD ON | Backlight OFF |
| Standard Battery Pack | Approx. 50 min. | Approx. 60 min. |
| Extended life Battery Pack (option) | Approx. 80 min. | Approx. 100 min. |

Notes

- Prepare an extra battery if you use the CAM outdoors.
- Contact the Samsung service centre to purchase new Battery Pack.
- If you zoom in or out, the recording time becomes shorter.
- 'Continuous Recording Time' indicates the time that you neither use zooming function nor play video files and record the video file continuously when the EIS( ) function is off.

# How to Use the Battery Pack

## Battery Level Display

The Battery Level Display shows the amount of battery power remaining in the Battery Pack.

| Battery Level Indicator | State | Message |
|---|---|---|
| | Fully charged | - |
| | 40~60% used | - |
| | 60~80% used | - |
| | 80~95% used | - |
| | Exhausted(flickers)<br>The device will soon turn off.<br>Change the Battery Pack as soon as possible. | - |
| | (flickers)<br>The device will be forced to turn off after 5 seconds. | "Low battery" |

## Tips for Battery Identification

A charge indicator is provided on the Battery Pack to help you remember whether it has been charged or not. If the battery has been fully charged, the charge indicator is green. If you are charging the battery, the colour of the charge indicator is orange. The charge indicator flickers if the battery is abnormal.

## Charging time based on battery type

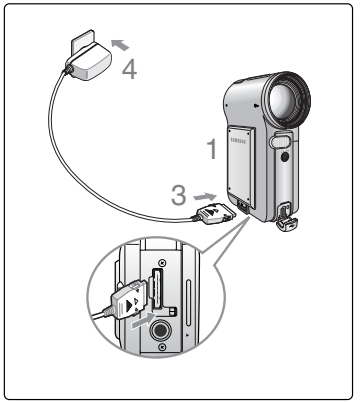
| Capacity | Power On | Power Off |
|---|---|---|
| Standard Battery Pack | Approx. 7 hr. | Approx. 1 hr. 50 min |
| Extended life Battery Pack (option) | Approx. 13 hr. | Approx. 3 hr. 20 min |

# How to Use the Battery Pack

## *Charging the Battery Pack*

1. **Attach the Battery Pack to the CAM.**
2. **Move [POWER/MODE Selector] up to turn the CAM off.**
3. **Connect the AC Power Adapter with the CAM.**
   - ◆ You can detach the AC adapter by pressing the buttons on the sides of the adapter cable plug while pulling it out.
4. **Insert the AC Power Adapter into the outlet.**

**Charging directly to the CAM**




Note

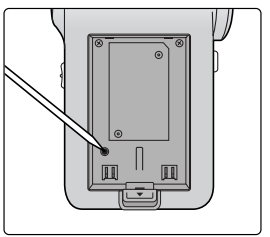
- ❖ You can charge the Battery Pack when you use the CAM, but it takes a long time relatively.

Warning

- ❖ It is recommended you fully charge the Battery Pack before use.
- ❖ You should only charge the battery in an environment between 0°C and 40°C.

## *Using Hardware Reset Function*

1. **Remove the Battery Pack and the AC Power Adapter.**
2. **Press and hold the [RESET] button over one second.**



Note

- ❖ If you reset the CAM, all functions you set are initialized.

## *The Colour of the LED*

The colour of the LED varies depending on the state of power or charging.

**When the AC Power Adapter is plugged in (When the Battery Pack is inserted.)**

| LED Colour | Power | Charging state |
|---|---|---|
| Red | Video / Voice Record | - |
| Green | On | - |
| Orange | Off | Charging |
| Green | Off | Fully charged |
| Orange Blink | - | Error |

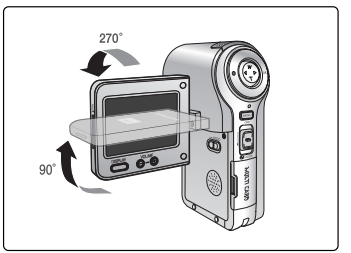
**When the Battery Pack is inserted (When the AC Power Adapter is unplugged.)**

| LED Colour | Power | Charging state |
|---|---|---|
| Red | Video / Voice Record | - |
| Green | On | - |

## *Using the LCD Monitor*

1. **Move the LCD Monitor up to open.**
   **It opens up to the angle of 90°.**

2. **Turn the LCD Monitor up.**
   **It turns up to the angle of 270°.**
   **You can close it at the angle of 180°.**



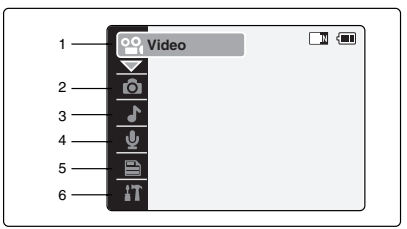
# Getting Started

## *Before You Start Operating the CAM*

Before using the CAM, refer to this page for easy operation. The Memory Card is an optional accessory and not included.

1. **Install the Battery Pack and insert a Memory Card into the MULTI CARD slot.** (Refer to page 33)
2. **Charge the Battery Pack by connecting AC Power Adapter with the CAM directly.** (Refer to page 23)
3. **Move [POWER/MODE Selector] down to turn on the CAM and move it down again.**
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)
4. **Move the [W/T] button to select the desired mode and press the [OK] button.**
   - ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
5. **Press the [OK] button to take pictures, record, hear music or record voice.**
   **Press the [MENU] button to view the menu.**
6. **When finished, move [POWER/MODE Selector] up to turn the CAM off.**

For example : If you want to select Video Mode



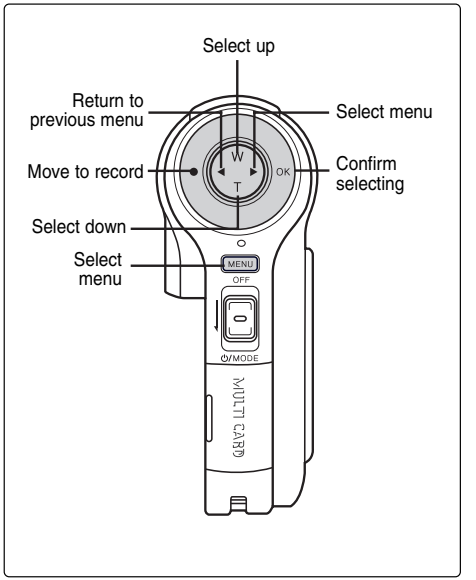

1. Video: You can record and play video files.
2. Photo: You can take and view photo files.
3. MP3: You can download and hear the music.
4. Voice Recorder: You can record and hear the voice.
5. File Browser: You can delete, lock, copy the file and view the file information.
6. System Settings: You can set the LCD monitor brightness/colour, date/time, system, memory and language.

## *Using the Function Button*

The Function button is used to make a selection, move the cursor, select the functions and exit from the menu.

### The Use of Various Function button

| Button | Record/ Capture Mode | Play Mode | Menu Selection Mode |
|---|---|---|---|
| W | Zoom out (W) | Multi-play screen | Select up |
| T | Zoom in (T) | - | Select down |
| ◀ | - | RPS(◀◀)/ Move backward | Return to previous menu |
| ▶ | - | FPS(▶▶)/ Move forward | Select menu |
| ● | Recording | Move to Record mode | Move to record |
| OK | Move to the last recorded file | Pause | Confirm selecting |




Notes

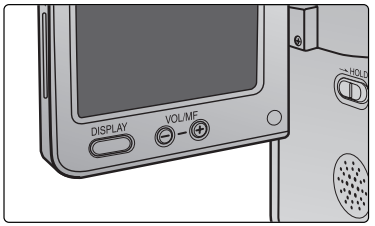
- If there is no file when you press the [OK] button in Video Record/Photo Capture, the message as “No Files...” appears.
- Refer to page 39 for further details about the function button.

# Getting Started

## *Using the DISPLAY Button*

You can use various functions by pressing the [DISPLAY] button.

1. **Open the LCD monitor.**
2. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
   - ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)
3. **Press the [DISPLAY] button.**




### If you press the [DISPLAY] button

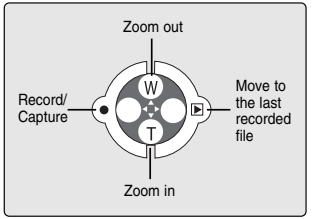
**Video/Photo mode**

- ✤ Once: The display indicator disappears.
- ✤ Twice: The back light turns off.
- ✤ 3 times: The LCD monitor turns off.
- ✤ 4 times: It turns to the initial screen.

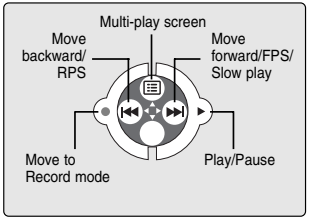
**MP3/Voice Recorder/File Browser/ System Settings mode**

- ✤ Once: The back light turns off.
- ✤ Twice: The LCD monitor turns off.
- ✤ 3 times: It turns to the initial screen.

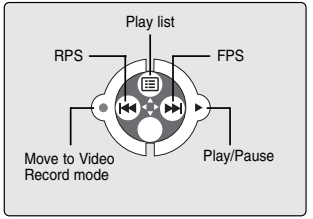
**Record/Capture Mode**



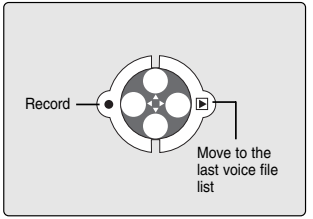

**Play Mode**




**MP3 Play mode**




**Voice Record mode**



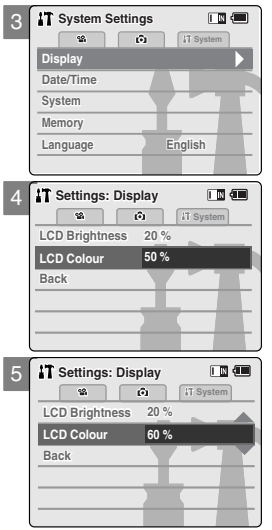

### Power Saving Function

The LCD monitor is turned off after a certain period of time has passed in each mode in order to prevent unnecessary battery power consumption. Press any button to go back to the previous mode.

## *Adjusting the LCD Monitor*

Your CAM is equipped with a colour Liquid Crystal Display monitor, which enables you to view directly what you are recording or playing back. Depending on the conditions under which you are using the CAM (indoors or outdoors for example), you can adjust the LCD Brightness or Colour.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
2. **Move [POWER/MODE Selector] down to select *System Settings* and press the [OK] button.**
   - The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
3. **Move the [W/T] button to select <Display> and press the [►] button.**
4. **Move the [W/T] button to select <LCD Brightness> or <LCD Colour> and press the [OK] button.**
5. **Move the [W/T] button to select desired brightness or colour and press the [OK] button.**
   - Refer to pages 90~91 for details.




Notes

- ✤ If you select [◄ ] button in the menu, the previous menu appears.
- ✤ If it is too bright, adjust the LCD Brightness.

# Getting Started

## *Structure of the Folders and Files*

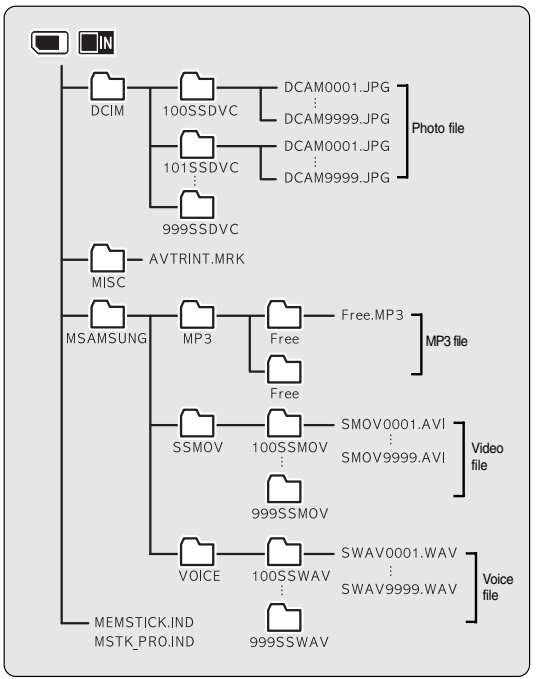
The video files and photo files are stored in internal memory or external memory(Memory Card) as below.

**Notes**

- Refer to page 33 for details about Memory Card.
- You can store general data in files and folders of the CAM.
- The number of the file is up to 9,999 and folder is up to 999.
- DCAM✻✻✻✻.JPG: Photo file
  SMOV✻✻✻✻.AVI: Video file
  SWAV✻✻✻✻.WAV: Voice file
  ✻✻✻✻✻✻✻✻.MP3: MP3 file
- MISC: DPOF files are stored.
- Do not change the file or folder name except 'Free'.
- You can freely change the file or folder name of 'Free'.
- Video files that you have not made with the CAM may not be able to be played.

**Warning**

- Do not turn the power off while recording, playing, erasing file or formatting.
- Turn the power off before you insert or eject the Memory Card to avoid losing data.
- Save important files separately.



## *Recording Time and Capacity*

### Video Record Time

| Media | Capacity | Super Fine | | Fine | | Normal | |
|---|---|---|---|---|---|---|---|
| | | 352p | 720i/720p | 352p | 720i/720p | 352p | 720i/720p |
| Internal Memory | 512MB (VP-M2050S(B)) | approx. 21min. | approx. 14min. | approx. 32min. | approx. 21min. | approx. 65min. | approx. 32min. |
| | 1GB (VP-M2100S(B)) | approx. 43min. | approx. 29min. | approx. 65min. | approx. 43min. | approx. 131min. | approx. 65min. |
| | 2GB (VP-M2200S(B)) | approx. 86min. | approx. 58min. | approx. 130min. | approx. 86min. | approx. 262min. | approx. 130min. |
| Memory Stick | 32MB | X | X | approx. 2min. | X | approx. 4min. | approx. 2min. |
| | 64MB | X | X | approx. 4min. | X | approx. 8min. | approx. 4min. |
| | 128MB | X | X | approx. 8min. | X | approx. 16min. | approx. 8min. |
| | 256MB | approx. 10min. | approx. 6min. | approx. 15min. | approx. 10min. | approx. 30min. | approx. 15min. |
| | 512MB | approx. 21min. | approx. 14min. | approx. 32min. | approx. 21min. | approx. 64min. | approx. 32min. |
| | 1GB | approx. 43min. | approx. 29min. | approx. 65min. | approx. 43min. | approx. 131min. | approx. 65min. |
| SD/MMC | 32MB | approx. 1min. 20sec. | approx. 50sec. | approx. 2min. | approx. 1min. 20sec. | approx. 4min. | approx. 2min. |
| | 64MB | approx. 3min. | approx. 2min. | approx. 4min. | approx. 3min. | approx. 7min. | approx. 4min. |
| | 128MB | approx. 4min. | approx. 3min. | approx. 7min. | approx. 4min. | approx. 17min. | approx. 7min. |
| | 256MB | approx. 11min. | approx. 7min. | approx. 17min. | approx. 11min. | approx. 32min. | approx. 17min. |
| | 512MB | approx. 21min. | approx. 14min. | approx. 32min. | approx. 21min. | approx. 65min. | approx. 32min. |
| | 1GB | approx. 43min. | approx. 29min. | approx. 65min. | approx. 43min. | approx. 131min. | approx. 65min. |

Warning

- Supports 2GB memory cards and lower. Any other above 2GB may not record or play properly.
- The compression is changed automatically depending on the recorded images and the maximum recording time and capacity can be changed in 'Video Record'.
- You can record video files with size of 720i/Normal, 720p/Normal, 352p/Fine, and 352p/Normal in Memory Card but the quality is not guaranteed.
- If you record video files with the quality of Normal(352p, 720i, 720p) in the internal memory or a Memory Card, the recording time becomes longer but the video may have lower quality than other quality level.
- The recording time and capacity may vary if bad sectors are generated when you record video files to a Memory Card.

# Getting Started

## Photo capacity

| Media | Capacity | Quality | | | |
|---|---|---|---|---|---|
| | | 2400×1800 | 1600×1200 | 1024×768 | 640×480 |
| Internal Memory | 512MB (VP-M2050S(B)) | approx. 378 | approx. 756 | approx. 1626 | approx. 2877 |
| | 1GB (VP-M2100S(B)) | approx. 756 | approx. 1513 | approx. 3252 | approx. 5754 |
| | 2GB (VP-M2200S(B)) | approx. 1513 | approx. 3027 | approx. 6506 | approx. 11511 |
| Memory Stick | 32MB | approx. 23 | approx. 46 | approx. 100 | approx. 177 |
| | 64MB | approx. 46 | approx. 93 | approx. 201 | approx. 357 |
| | 128MB | approx. 94 | approx. 188 | approx. 405 | approx. 716 |
| | 256MB | approx. 188 | approx. 377 | approx. 811 | approx. 1436 |
| | 512MB | approx. 378 | approx. 756 | approx. 1625 | approx. 2875 |
| | 1GB | approx. 756 | approx. 1513 | approx. 3252 | approx. 5754 |
| SD/MMC | 32MB | approx. 23 | approx. 46 | approx. 100 | approx. 177 |
| | 64MB | approx. 46 | approx. 93 | approx. 201 | approx. 357 |
| | 128MB | approx. 94 | approx. 188 | approx. 405 | approx. 716 |
| | 256MB | approx. 188 | approx. 377 | approx. 811 | approx. 1436 |
| | 512MB | approx. 378 | approx. 756 | approx. 1625 | approx. 2875 |
| | 1GB | approx. 756 | approx. 1513 | approx. 3252 | approx. 5754 |

## Voice Record Time

| Media | Capacity | Time |
|---|---|---|
| Internal Memory | 512MB (VP-M2050S(B)) | approx. 17hr. |
| | 1GB (VP-M2100S(B)) | approx. 35hr. |
| | 2GB (VP-M2200S(B)) | approx. 70hr. |
| Memory Stick | 32MB | approx. 1hr. |
| | 64MB | approx. 2hr. |
| | 128MB | approx. 4hr. |
| | 256MB | approx. 8hr. |
| | 512MB | approx. 17hr. |
| | 1GB | approx. 35hr. |
| SD/MMC | 32MB | approx. 1hr. |
| | 64MB | approx. 2hr. |
| | 128MB | approx. 4hr. |
| | 256MB | approx. 8hr. |
| | 512MB | approx. 17hr. |
| | 1GB | approx. 35hr. |

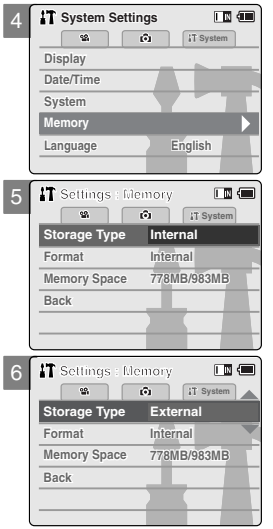
Notes

- The Photo capacity and Voice Record Time is an approximation.
  The Photo capacity is subject to change depending on the photo capture screen. The Voice Record Time is also subject to change.
- No guarantee can be provided to a Memory Card not formatted on this CAM. Make sure to format a Memory Card on the CAM. (Refer to page 103)
- Do not format a Memory Card on a PC.
- The recording time and the number of images shown are maximum figures based on using one function.
  In actual use, using more than one function will reduce the capacity of each.
- If you set the flash on, you can take fewer photos than mentioned the number of images.
- While saving in the Memory Card that you have, sometimes recording may stop with the message popping up saying that <Low speed card. Please record at lower quality.> It is because the writing speed of the Memory Card is slow.
  It is recommended to use a Memory Card of 1.25MB/sec or greater.

## *Selecting the Memory Type*

You can select the memory type - internal memory or external memory(Memory Card).
A Memory Card is an optional accessory.
The OSD indicators are based on internal memory.

1. **Insert a Memory Card.** (Refer to page 33)
2. **Move [POWER/MODE Selector] down to turn on the CAM.**
3. **Move [POWER/MODE Selector] down to select *System Settings* and press the [OK] button.**
   - The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
4. **Move the [W/T] button to select <Memory> and press the [►] button.**
5. **Move the [W/T] button to select <Storage Type> and press the [►] button.**
6. **Move the [W/T] button to select desired type and press the [OK] button.**
   - You can select external or internal memory.




Note

✤ If you insert a Memory Card when the CAM on, the pop-up screen about the memory type selection screen appears automatically.

# Getting Started

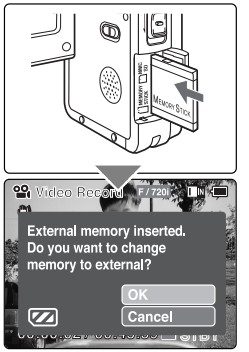
## *Using a Memory Card (Optional Accessory)*

### Inserting a Memory Card

1. **Open the LCD monitor.**
2. **Open the MULTI CARD slot lid.**
3. **Insert a Memory Card into the slot until it softly clicks.**
4. **Close the slot lid.**

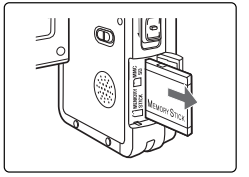
***Caution:*** The screen will appear if a Memory Card is inserted with the power on.

- ◆ If you select <OK>, the memory type changes to 'External' and if you select <Cancel>, files are stored in internal memory.
- ◆ If you insert a locked Memory Card, the [ ] icon is displayed next to the memory type indicator.




### Ejecting a Memory Card

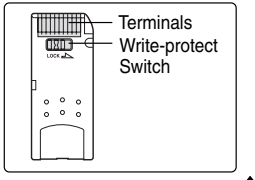
1. **Open the LCD monitor.**
2. **Open the MULTI CARD slot lid.**
3. **Slightly push the Memory Card inwards to pop it out.**
4. **Pull the Memory Card out of the slot and close the lid.**



Notes

- ✤ Do not apply excessive force when you insert or eject a Memory Card.
- ✤ Do not turn the power off while recording, playing, erasing files or formatting a Memory Card.
- ✤ Turn the power off before you insert or eject a Memory Card to avoid losing data.
- ✤ Do not place a Memory Card near a strong electro-magnetic device.
- ✤ Do not allow metal substances to come in contact with the terminals on the Memory Card.
- ✤ Do not bend a Memory Card.
- ✤ After pulling a Memory Card out from the CAM, keep the Memory Card in a soft case to prevent static shock.
- ✤ The data stored on the Memory Card may be changed or lost as a result of misuse, static electricity, electric noise or repair. Save important files separately.
- ✤ Samsung is not responsible for data loss due to misuse.

### The Memory Stick View




MEMORY STICK ™

- ✤ Memory Stick and MEMORY STICK ™ are trademarks of Sony Corporation.
- ✤ All other product names mentioned herein may be the trademarks or registered trademarks of their respective companies. "TM" will not be mentioned in every instance in this manual.

## *Mode and Menu Selection*

You can select the mode and menu as follows.

### Mode Selection

1. **Move the [POWER/MODE Selector] down to turn on the CAM.**
2. **Move the [POWER/MODE Selector] down to select a desired mode and press the [OK] button.**
   - ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.

### Menu Selection

1. **Press the [MENU] button after selecting the desired mode.**
2. **The menu screen disappears when you press the [MENU] button again.**

Note

✤ User's manual only describes the first way of performing an operation.
There may be other and more convenient ways for you to use the CAM.

# 1 Video Mode

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Note

✤ You can set the time and date in System Settings. Refer to pages 92~93.

# Video Mode : Recording

## *Recording*

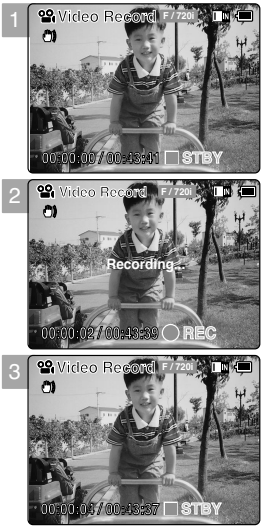
You can record moving person and objects and store it in memory.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
   - You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

2. **Press [Record/Stop] button to start recording.**
   - [ ● REC] indicator displays on LCD monitor.
   - The elapsed time is displayed and it starts recording.

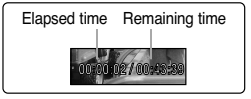
3. **Press the [Record/Stop] button again to stop recording.**
   - It stops recording and the CAM is ready again.

4. **Move [POWER/MODE Selector] up to turn off the CAM.**




Notes

- If you press it again within 1 second, a new video file will not be created.
- If the Auto Shut Off is set, the CAM turns off automatically after 5 minutes.
- Detach the Battery Pack when recording has finished to prevent unnecessary battery power consumption.
- You can check the recording time.



# Video Mode : Recording

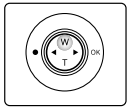
## *Zooming In and Out*

Zooming technique lets you change the size of the subject captured in a scene.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**

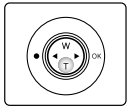
- ◆ The Video Record screen appears.
- ◆ You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

**2. Press the [Record/Stop] button to start recording.**



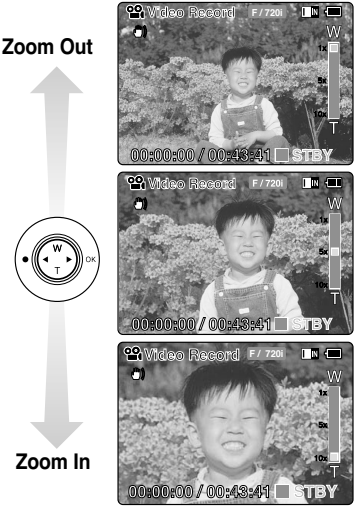
**Press the [ W] button to zoom out.**

- The subject appears further away when you zoom out.



**Press the [ T] button to zoom in.**

- The subject appears closer when you zoom in.




Notes

- ✤ Zooming in the CAM is x10-optical electro motion zoom and the quality and definition of the captured photo file are well maintained even when using the zoom.
- ✤ Frequent use of zooming may result in higher battery power consumption.
- ✤ Refer to page 55 about Digital Zoom.

# Video Mode : Playing

## *Playing on the LCD Monitor*

It is handy and practical to view video files using the LCD monitor almost anywhere such as in a car, indoors or outdoors.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
   - You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

2. **Press the [OK] button.**
   - It moves to Video Play mode.

3. **Press the [W] button.**
   - The Multi-play screen appears.

4. **Move the [W/T, ◄/►] button to find the video file you want to play.**
   - Each time you move the [W/T, ◄/►] button, the frame moves vertically and horizontally.
   - Each time you press the VOL [+]/[–] button, another page of 9 frames is displayed.

5. **Press [OK] button to play the video file you want.**
   - Each time you press the [OK] button, play or pause is selected repeatedly.

6. **Press the [OK] button again to pause.**

# Video Mode : Playing

## The buttons you use In Video Play mode

**[OK] button: Play or pause the video file**
**[W] button: The Multi-play screen appears.**
**[◀] button: When playing back: Press it to move to the beginning of the current file. Press it again to move to previous file.**
**Press and hold it to use RPS function. (RPS rate: ◀◀ 2x→4x→8x→16x→32x→64x→128x)**
**[▶] button: When playing back: Press it to move to next file.**
**Press and hold it to use FPS function. (FPS rate: ▶▶ 2x→4x→8x→16x→32x→64x→128x)**
**In Video Play mode: Press and hold it to play slowly when paused.**
**Press it to play the frame by frame when paused.**

## Adjusting the Sound

1. **Press the [OK] button to play the video file.**

2. **Press the VOL [+] button to increase the volume.**
   - Each time you press the [+] button, the volume bar increases and the sound level will get louder.
   - The Volume indicator disappears after 1-2 seconds.

3. **Press the VOL [–] button to decrease the volume.**
   - Each time you press the [–] button, the volume bar decreases and the sound level will get quieter.
   - The Volume indicator disappears after 1-2 seconds.

Notes

- If you connect the Audio/Video cable to the Earphones and AV jack of the CAM, the Built-in speaker won't turn off automatically.
- You can adjust the volume up to 10 steps.
- You can also play the video file on a TV screen by connecting the CAM to a TV. (Refer to page 111)
- A video codec is required to play the video files recorded on the CAM on a computer.
  Install the software provided in the CD Bundle to have the CODEC automatically installed in the system. If you do not have the CD, search the product model name on the Download Centre in the Samsung Electronics home page to get the CODEC installation file.
  (Refer to page 116)

# Video Mode : Selecting File Options

## *Deleting Video files*

You can delete video files in <File Options>.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
   - You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

2. **Press the [OK] button.**
   - It moves to Video Play mode.

3. **Press the [W] button.**
   - The Multi-play screen appears.

4. **Move the [W/T, ◄/►] button to select the video file you want to delete.**
   - Each time you move the [W/T, ◄/►] button, the frame moves vertically and horizontally.
   - Each time you press the VOL [+]/[–] button, another page of 9 frames is displayed.

5. **Press the [MENU] button.**
   **Move the [W/T] button to select <Delete> and press the [OK] button.**

6. **Move the [W/T] button to select the desired item. Press the [OK] button.**
   - **Selected**: The selected video file is deleted.
   - **All**: All video files are deleted.
   - **Cancel**: Cancel deleting video files.

Note

- The locked file can not be deleted.

# Video Mode : Selecting File Options

## *Locking Video files*

You can lock the important video file to prevent accidental deletion.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- The Video Record screen appears.
- You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

**2. Press the [OK] button.**
- It moves to Video Play mode.

**3. Press the [W] button.**
- The Multi-play screen appears.

**4. Move the [W/T, ◄/►] button to select the video file you want to lock.**
- Each time you move the [W/T, ◄/►] button, the frame moves vertically and horizontally.
- Each time you press the VOL [+]/[–] button, another page of 9 frames is displayed.

**5. Press the [MENU] button.**
**Move the [W/T] button to select <Lock> and press the [OK] button.**

**6. Move the [ W/T] button to select the followings and press the [OK] button.**
- **Selected**: The selected video file is locked.
- **All**: All video files are locked.
- **Cancel**: Cancel locking video files.

Note

- The < 🔒 > icon is displayed on the locked file.

# Video Mode : Selecting File Options

## *Copying Video files*

You can copy the video file to the internal or external memory.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
   - You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

2. **Press the [OK] button.**
   - It moves to Video Play mode.

3. **Press the [W] button.**
   - The Multi-play screen appears.

4. **Move the [W/T, ◄/►] button to select the video file you want to copy.**
   - Each time you move the [W/T, ◄/►] button, the frame moves vertically and horizontally.
   - Each time you press the VOL [+]/[–] button, another page of 9 frames is displayed.

5. **Press the [MENU] button.**
   **Move the [W/T] button to select <Copy To> and press the [OK] button.**
   - If you selected video 'external' as the Storage type, the file is copied to 'internal' and vice versa.

6. **Move the [ W/T] button to select the followings and press the [OK] button.**
   - **Selected**: Copy the selected video file.
   - **All**: Copy all video files.
   - **Cancel**: Cancel copying video files.

Note

- If the Memory Card is not inserted, you cannot select <Copy To>.

# Video Mode : Selecting File Options

## *Setting Multi Selection*

You can set the multi video files to delete, copy or lock at one time.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
   - You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)
2. **Press the [OK] button.**
   - It moves to Video Play mode.
3. **Press the [W] button.**
   - The Multi-play screen appears.
4. **Press the [MENU] button.**
   **Move the [W/T] button to select <Multi Select> and press the [OK] button.**
   - Use VOL + button to add selection, VOL – button to deselect the message appears. Press [OK] button to close the confirm message.
5. **Move the [W/T, ◄/►] button to select desired video file, and press the VOL [+] or VOL [–] button.**
   - VOL [+]: The selected video file has the mark <✔>.
   - VOL [–]: When the mark <✔> disappears, the selection is canceled.
6. **Press the [MENU] button. Move [W/T] button to select <Delete>, <Copy To> or <Lock> and press the [OK] button.**
7. **Move the [W/T] button to select the followings and press the [OK] button.**
   - **Selected**: The selected video file is deleted, copied, or locked.
   - **All**: All the video files are deleted, copied, or locked.
   - **Cancel**: Cancel selecting video files.

Note

- The locked file can not be deleted.

# Video Mode : Selecting File Options

## *Setting the PB Option*

You can play all files continuously or play only selected file.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- The Video Record screen appears.
- You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

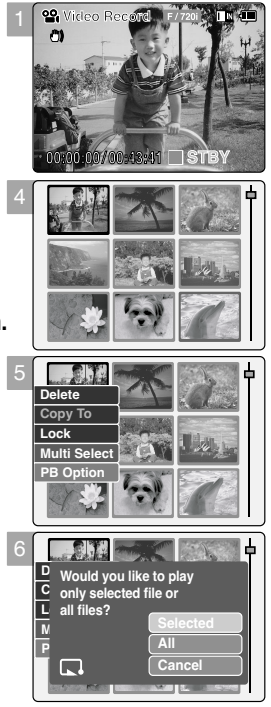
**2. Press the [OK] button.**
- It moves to Video Play mode.

**3. Press the [W] button.**
- The Multi-play screen appears.

**4. Move the [W/T, ◄/►] button to select the video file you want to set the function.**
- Each time you move the [W/T, ◄/►] button, the frame moves vertically and horizontally.
- Each time you press the VOL [+]/[–] button, another page of 9 frames is displayed.

**5. Press the [MENU] button.**
**Move the [W/T] button to select <PB Option> and press the [OK] button.**

**6. Move the [W/T] button to select the following and press the [OK] button.**
- **Selected**: Play the selected video file.
- **All**: Play all video files.
- **Cancel**: Cancel setting PB Option.



# Video Mode : Setting Various Functions

## *Setting the Video file Size*

You can set the file size for video files. The number of stored files varies depending on the Memory Card capacity and video file size.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- The Video Record screen appears.
- You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

**2. Press the [MENU] button.**
- The Video Settings screen appears.

**3. Move the [W/T] button to select <Size> and press the [▶] button.**

**4. Move the [▲/▼] switch to select the video file size and press the [OK] button.**
- **720**: Select 720X576 pixel.
- **352**: Select 352X288 pixel.

**5. Press the [MENU] button to finish setting.**
- The icon of selected function is displayed.

Notes

- If you select [◀] button in the menu, the previous menu appears.
- In case <TV> is selected in the Record Mode, it indicates 720i only.
  In case <PC> is selected in the Record Mode, it indicates 720p or 352p.

# Video Mode : Setting Various Functions

## *Setting the Video file Quality*

You can set the quality for video files. The number of stored files varies depending on the Memory Card capacity and video file quality.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
   - You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

2. **Press the [MENU] button.**
   - The Video Settings screen appears.

3. **Move the [W/T] button to select <Quality> and press the [▶] button.**

4. **Move the [W/T] button to select the video file quality and press the [OK] button.**
   - **Super Fine**(SF): Select highest quality.
   - **Fine**(F): Select high quality.
   - **Normal**(N): Select normal quality.

5. **Press the [MENU] button to finish setting.**
   - The icon of selected function is displayed.

Notes

- If you select [◀] button in the menu, the previous menu appears.
- You can record video files with size of 720i/Normal, 720p/Normal, 352p/Fine and 352p/Normal onto the Memory Card but the quality is not guaranteed.

# Video Mode : Setting Various Functions

## *Setting the Video file Record mode*

You can set the record mode before starting video file record.

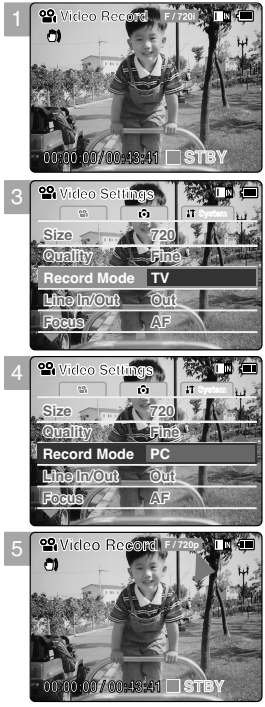
**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- The Video Record Screen appears.
- You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

**2. Press the [MENU] button.**
- The Video Settings screen appears.

**3. Move the [W/T] button to select <Record Mode> and press the [▶] button.**

**4. Move the [W/T] button to select the desired setting and press the [OK] button.**
- **TV (i)**: The system generates clear images when played back on TV.
- **PC (p)**: The system generates clear images when played back on PC.

**5. Press the [MENU] button to finish setting.**




Notes

- If you select [◀] button in the menu, the previous menu appears.
- In case <TV> is selected as the Record Mode, the size is set to 720i only.
- In case <PC> is selected as the Record Mode, the size is set to 720p or 352p.
- When the size is set to <352>, <PC> is automatically selected for Video files recording.

# Video Mode : Setting Various Functions

## *Setting the External Input/Output*

You can record or play back the contents of the CAM into an external device and vice versa.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**

- The Video Record Screen appears.
- You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

**2. Press the [MENU] button.**

- The Video Settings screen appears.

**3. Move the [W/T] button to select <Line In/Out> and press the [▶] button.**

**4. Move the [W/T] button to select the desired setting and press the [OK] button.**

- **Out**: Select this when recording or playing back the contents of the CAM into an external device.
- **In**: Select this when recording the contents of an external device into the CAM.

**5. Press the [MENU] button to finish setting.**

- The CAM is set to the selected setting.

Note

- If you select [◀] button in the menu, the previous menu appears.

# Video Mode : Setting Various Functions

## *Setting the Focus*

You can set the focus depending on the subject or the environment.
In most situations, you can record best using AF(Auto Focus).

**1. Move [POWER/MODE Selector] down to turn on the CAM.**

- The Video Record screen appears.
- You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

**2. Press the [MENU] button.**

- The Video Settings screen appears.

**3. Move the [W/T] button to select <Focus> and press the [▶] button.**

**4. Move the [W/T] button to select the desired setting and press the [OK] button.**

- **AF**: Set the focus automatically.
- **MF(✋)**: Set the focus manually.

**5. Press the [MENU] button to finish setting.**

- The icon of selected function is displayed.
- If you select the AF, no icon is displayed.

### Manual Focus

**Adjust the focus using MF [+] / [−] button to zoom in or out manually.**

- When a picture contains objects that are both close and far away from the CAM.
- When a person is enveloped in fog or surrounded by snow.

Notes

- If you select [◀] button in the menu, the previous menu appears.
- Changes in the set-up made in the Photo mode are all retained in the Video mode.
- The focus is set to AF mode automatically when the CAM is turned off.

# Video Mode : Setting Various Functions

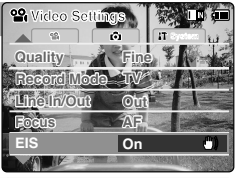
## *Setting the EIS (Electronic Image Stabilizer)*

The Electronic Image Stabilizer is a function that compensates for hand shake and other movements while recording.
EIS provides more stable video when:

- Recording with zooming
- Recording small objects
- Recording while walking or moving
- Recording through the window in a vehicle

**1. Move [POWER/MODE Selector] down to turn on the CAM.**

- The Video Record screen appears.
- You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)




**2. Press the [MENU] button.**

- The Video Settings screen appears.

**3. Move the [W/T] button to select <EIS> and press the [▶] button.**

**4. Move the [W/T] button to select the desired setting and press the [OK] button.**

- **On( )**: Set the EIS function.
- **Off**: Cancel the EIS function.

**5. Press the [MENU] button to finish setting.**

- If you select <On>, the icon of EIS is displayed.
- If you select <Off>, no icon is displayed.

Note

- If you select [◀] button in the menu, the previous menu appears.

# Video Mode : Setting Various Functions

## *Setting the White Balance*

The White Balance may vary depending on the lighting conditions.
The White Balance is used to preserve natural colours under different lighting conditions.

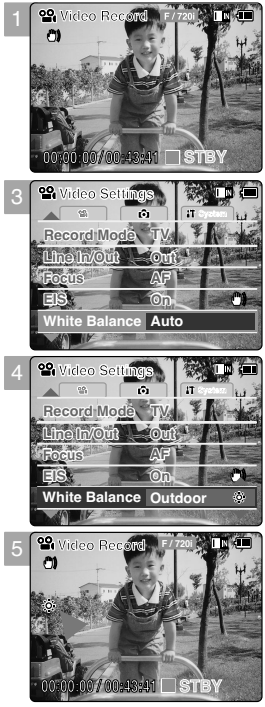
**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- The Video Record screen appears.
- You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

**2. Press the [MENU] button.**
- The Video Settings screen appears.

**3. Move the [W/T] button to select <White Balance> and press the [▶] button.**

**4. Move the [W/T] button to select desired setting and press the [OK] button.**
- **Auto**: Adjust the colour depending on the condition automatically.
- **Hold( )**: Record with first selected colour without adjusting colour.
- **Outdoor( )**: Record with the balanced light. (Natural light)
- **Indoor( )**: Record with the balanced light. (Glow lamp or light in the studio)

**5. Press the [MENU] button to finish setting.**
- The icon of selected function is displayed.
- If you select <Auto>, no icon is displayed.




Notes

- If you select [◀] button in the menu, the previous menu appears.
- Changes in the set-up made in the Photo mode are all retained in the Video mode.

# Video Mode : Setting Various Functions

## *Setting the Program AE (Programmed Auto Exposure)*

It allows you to adjust the aperture setting to suit different conditions.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- The Video Record screen appears.
- You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

**2. Press the [MENU] button.**
- The Video Settings screen appears.

**3. Move the [W/T] button to select <Program AE> and press the [►] button.**

**4. Move the [W/T] button to select desired setting and press the [OK] button.**
- **Auto**: Auto mode balances exposure and shutter speed to get the best result. The shutter speed automatically varies from 1/60 to 1/250 per second depending on the scene.
- **Sports(🏃)**: For recording fast-moving people or objects. It is suitable for sports events, recording outside in the car.
- **Spotlight(🎭)**: Compensates for a subject that appears too bright under strong direct light such as spotlight. It is suitable for concert and school performance.
- **Sand/Snow(❄)**: Use when the light is very strong such as on the beach or in the snow.
- **HS Shutter(⊗)**: Allows fast-moving images to be captured one frame at a time.

**5. Press the [MENU] button to finish setting.**
- The icon of selected function is displayed.
- If you select <Auto>, no icon is displayed.

Note

- If you select [◄] button in the menu, the previous menu appears.

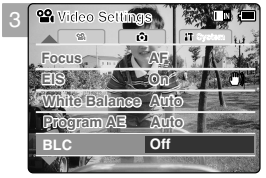
# Video Mode : Setting Various Functions

## *Setting the BLC (Backlight Compensation)*

The Backlight Compensation function helps to make the subject brighter when the subject is in front of a window or the subject is too dark to distinguish.
You can use this function when using the CAM in bright background and snowy background.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**

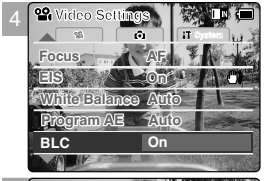
- The Video Record screen appears.
- You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)




**2. Press the [MENU] button.**

- The Video Settings screen appears.

**3. Move the [W/T] button to select <BLC> and press the [▶] button.**




**4. Move the [W/T] button to select desired setting and press the [OK] button.**

- **Off**: Cancel the BLC function.
- **On( BLC )**: Set the BLC function.

**5. Press the [MENU] button to finish setting.**

- < BLC > is displayed.
- If you select <Off>, < BLC > is not displayed.

Notes

- If you select [◀ ] button in the menu, the previous menu appears.
- The BLC is set to Off when the CAM is turned off.
- Changes in the set-up made in the Photo mode are all retained in the Video mode.

# Video Mode : Setting Various Functions

## *Setting the Effect*

You can create professional looking effect on your video file.

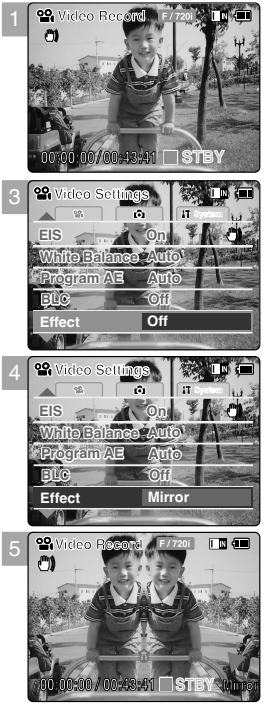
**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- The Video Record screen appears.
- You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

**2. Press the [MENU] button.**
- The Video Settings screen appears.

**3. Move the [W/T] button to select <Effect> and press the [▶] button.**

**4. Move the [W/T] button to select desired setting and press the [OK] button.**
- **Off**: Cancel the <Effect>.
- **Art**: Artistic effects on your video file.
- **Mosaic**: A mosaic overlay appears on your video file.
- **Sepia**: The picture is displayed in sepia colour similar to that of an old photograph.
- **Negative**: Reverses the colours, creating the look of a negative.
- **Mirror**: This mode cuts the picture in half using a Mirror effect.
- **B&W**: Changes the images into Black and White.

**5. Press the [MENU] button to finish setting.**
- The effect and letter of selected function are displayed.
- If you select <Off>, no icon is displayed.




Notes

- If you select [◀ ] button in the menu, the previous menu appears.
- When the screen size is set to 352(352×288), it is played back in smaller size than 720(720×576) on PC.

# Video Mode : Setting Various Functions

## *Setting the Digital Zoom*

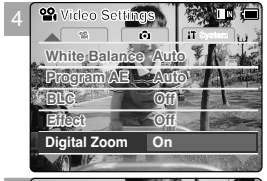
Zooming more than x10 is achieved digitally, up to x100 when combined with optical zoom. The Digital Zoom processes data to enlarge the centre portion of the image to fill the frame. It may produce a less detailed and slightly grainy picture.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**

- The Video Record screen appears.
- You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

**2. Press the [MENU] button.**

- The Video Settings screen appears.




**3. Move the [W/T] button to select <Digital Zoom> and press the [▶] button.**

**4. Move the [W/T] button to select desired setting and press the [OK] button.**

- **Off**: Cancel the Digital Zoom.
- **On**: Set the Digital Zoom. (x100)

**5. Press the [MENU] button to finish setting.**

**6. Move the [W/T] button to use the digital zoom.**

- The Digital Zoom indicator appears.

Note

- If you select [◀ ] button in the menu, the previous menu appears.

# Video Mode : Setting Various Functions

## *Setting the Backlight Auto Control*

This function enables to save power consumption by controlling the brightness of LCD monitor automatically outdoors.

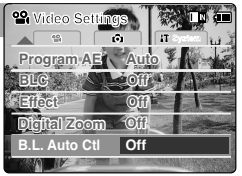
1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
   - You can select Video mode or Previous mode as the start-up mode in System Settings. (Refer to page 98)

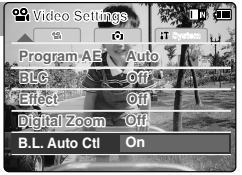
2. **Press the [MENU] button.**
   - The Video Settings screen appears.

3. **Move the [W/T] button to select <B.L. Auto Ctl> and press the [▶] button.**

4. **Move the [W/T] button to select the desired setting and press the [OK] button.**
   - **Off**: Cancel the B.L. Auto Ctl function.
   - **On**: Set the B.L. Auto Ctl function. When using Backlight Auto Control function in the bright background outdoors, you can prevent unnecessary battery power consumption.

5. **Press the [MENU] button to finish setting.**



Notes

- If you select [◀ ] button in the menu, the previous menu appears.
- Recording or Playing back the video file is not affected by Backlight Auto Control function.
- Changes in the set-up made in the Photo mode are all retained in the Video mode.
- If you set Backlight Auto Control function to On, the LCD monitor looks the same as an ordinary LCD monitor in bright lighting and sunlight outdoors.

# 2 Photo Mode

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# Photo Mode : Capturing

## *Capturing Images*

You can take photo as well as record video files.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
2. **Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
   - The Photo Capture screen appears.
   - The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
3. **Press [Record/Stop] button to take pictures.**
   - The message “capturing…” appears on the screen, and then it disappears.

Notes

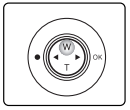
- If the battery is low, the flash will not operate automatically.
- In order to take pictures on the external memory (Memory Card), insert a Memory Card and then set the memory type to <External>. (Refer to page 32)
- Press the [MENU] button in the Photo Capture mode to see the Photo Settings screen.

# Photo Mode : Capturing

## *Zooming In and Out*

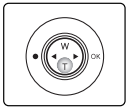
Zooming technique lets you change the size of the subject captured in a scene.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
2. **Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
   - ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - ◆ The Photo Capture screen appears.



**Press the [W] button to zoom out.**

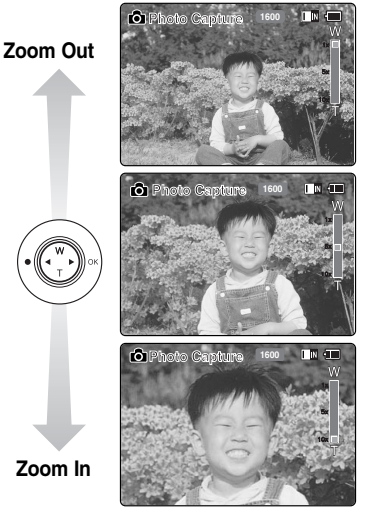
- The subject appears further away when you zoom out.



**Press the [T] button to zoom in.**

- The subject appears closer when you zoom in.

3. **Press the [Record/Stop] button to take pictures.**




Notes

- ❖ Zooming in the CAM is x10 -optical electro motion zoom and the quality and definition of the captured photo file are well maintained even when using the zoom.
- ❖ Frequent use of zooming may result in higher battery power consumption.

# Photo Mode : Viewing

## *Viewing Photo files on the LCD Monitor*

It is handy and practical to view pictures using the LCD monitor almost anywhere such as in a car, indoors or outdoors.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

**2. Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The Photo Capture screen appears.

**3. Press the [OK] button.**
- ◆ It moves to Photo View mode.

**4. Press the [W] button.**
- ◆ The Multi-play screen appears.

**5. Move the [W/T, ◄/►] button to find the photo you want to view.**
- ◆ Each time you move the [W/T, ◄/►] button, the frame moves vertically and horizontally.
- ◆ Each time you press the VOL [+]/[–] button, another page of 9 frames is displayed.

**6. Press [OK] button to view the photo you want.**
- ◆ The full screen is displayed.

Notes

- ❖ Display time may vary depending on the picture size.
- ❖ The image edited (turned) in Image Viewer program on your PC may not be displayed.

# Photo Mode : Selecting File Options

## *Deleting Photo files*

You can delete photo files in <File Options>.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

**2. Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The Photo Capture screen appears.

**3. Press the [OK] button.**
- ◆ It moves to Photo View mode.

**4. Press the [W] button.**
- ◆ The Multi-play screen appears.

**5. Move the [W/T, ◄/►] button to select the photo file you want to delete.**
- ◆ Each time you move the [W/T,◄/►] button, the frame moves vertically and horizontally.
- ◆ Each time you move the VOL [+]/[–] button, another page of 9 frames is displayed.

**6. Press the [MENU] button.**
**Move [W/T] button to select <Delete> and press the [OK] button.**

**7. Move the [ W/T] button to select the followings and press the [OK] button.**
- ◆ **Selected**: The selected photo file is deleted.
- ◆ **All**: All photo files are deleted.
- ◆ **Cancel**: Cancel deleting photo files.

Note

❖ The locked file can not be deleted.

# Photo Mode : Selecting File Options

## *Locking Photo files*

You can lock the important photo file not to be deleted.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

**2. Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The Photo Capture screen appears.

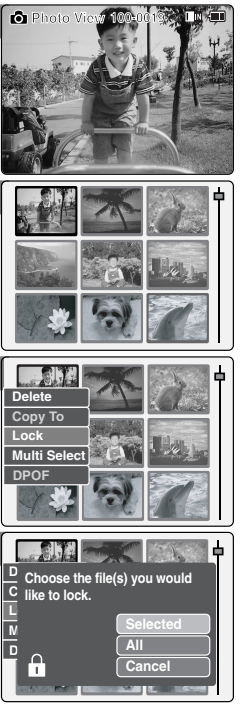
**3. Press the [OK] button.**
- ◆ It moves to Photo View mode.

**4. Press the [W] button.**
- ◆ The Multi-play screen appears.

**5. Move the [W/T, ◄/►] button to select the photo file you want to lock.**

**6. Press the [MENU] button.**
**Move [W/T] button to select <Lock> and press the [OK] button.**

**7. Move the [ W/T] button to select the followings and press the [OK] button.**
- ◆ **Selected**: The selected photo file is locked.
- ◆ **All**: All photo files are locked.
- ◆ **Cancel**: Cancel locking photo files.




Note

❖ The < > icon is displayed on the locked file.

# Photo Mode : Selecting File Options

## *Copying Photo files*

You can copy photo files to the internal or external memory.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
2. **Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
   - The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - The Photo Capture screen appears.
3. **Press the [OK] button.**
   - It moves to Photo View mode.
4. **Press the [W] button.**
   - The Multi-play screen appears.
5. **Move the [W/T, ◄/►] button to select the photo file you want to copy.**
6. **Press the [MENU] button. Move [W/T] button to select <Copy To> and press the [OK] button.**
   - If you select the Storage type 'External', the file is copied to 'Internal' and vice versa.
7. **Move the [ W/T] button to select the followings and press the [OK] button.**
   - **Selected**: Copy the selected photo file.
   - **All**: Copy all photo files.
   - **Cancel**: Cancel copying photo files.

Note

- If the Memory Card is not inserted, you cannot select <Copy To>.

# Photo Mode : Selecting File Options

## *Setting DPOF (Digital Print Order Format) Function*

You can automatically print a photo file recorded on a Memory Card with a printer supporting DPOF.
Insert a memory card into the MULTI CARD slot.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
2. **Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
   - ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - ◆ The Photo Capture screen appears.
3. **Press the [OK] button.**
   - ◆ It moves to Photo View mode.
4. **Press the [W] button.**
   - ◆ The Multi-play screen appears.
5. **Move the [W/T, ◄/►] button to select the photo file you want to print.**
6. **Press the [MENU] button. Move [W/T] button to select <DPOF> and press the [OK] button.**
   - ◆ You can select <DPOF> only when you've selected Storage Type 'External'. (Refer to page 32.)
7. **Move the [W/T] button to select the number of copies you want to print and press the [OK] button.**
8. **Press the [MENU] button to finish setting.**

Notes

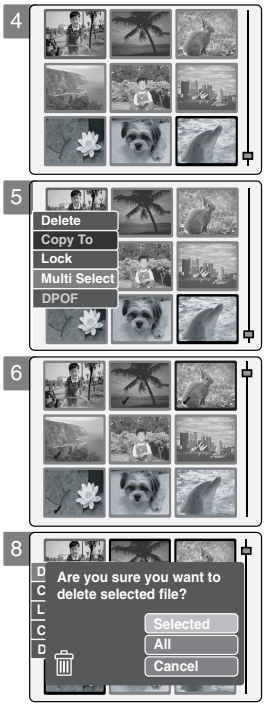
- ❖ Refer to page 120 for further details about printing DPOF files.
- ❖ You can set copies for DPOF print up to 30.

# Photo Mode : Selecting File Options

## *Setting Multi Selection*

You can set the multi photo files to delete, copy or lock at one time.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
2. **Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
   - ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - ◆ The Photo Capture screen appears.
3. **Press the [OK] button.**
   - ◆ It moves to Photo View mode.
4. **Press the [W] button.**
   - ◆ The Multi-play screen appears.
5. **Press the [MENU] button. Move [W/T] button to select <Multi Select> and press the [OK] button.**
   - ◆ Use VOL + button to add selection, VOL – button to deselect the message appears. Press [OK] button to close the confirm message.
6. **Move the [W/T, ◄/►] button to select desired setting, and press the VOL [+] or VOL [–] button.**
   - ◆ VOL [+]: The selected video file has the mark <✔>.
   - ◆ VOL [–]: When the mark <✔> disappears, the selection is canceled.
7. **Press the [MENU] button. Move [W/T] button to select <Delete>, <Copy To> or <Lock> and press the [OK] button.**
8. **Move the [ W/T] button to select the followings and press the [OK] button.**
   - ◆ **Selected**: The selected photo files are deleted, copied, or locked.
   - ◆ **All**: All photo files are deleted, copied, or locked.
   - ◆ **Cancel**: Cancel selecting photo files.




Notes

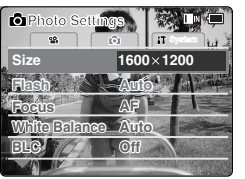
- ❖ The locked file can not be deleted.
- ❖ You can set Multi Selection in DPOF when using external memory.

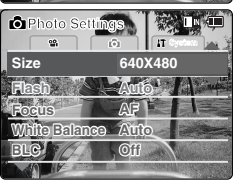
# Photo Mode : Setting Various Functions

## *Setting the Photo file Size*

You can set the photo files size. The number of stored files varies depending on the Memory Card capacity and photo files size.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
2. **Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
   - ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - ◆ The Photo Capture screen appears.
3. **Press the [MENU] button.**
4. **Move the [W/T] button to select <Size> and press the [▶] button.**
5. **Move the [W/T] button to select the desired setting and press the [OK] button.**
   - ◆ There are several photo file sizes, such as 2400X1800, 1600x1200, 1024x768 and 640x480.
6. **Press the [MENU] button to finish setting.**
   - ◆ The selected photo file size is displayed on the LCD monitor.



Notes

- ❖ If you select [◀ ] button in the menu, the previous menu appears.
- ❖ The size of 2400X1800 is created by Linear Interpolation, so the quality of the image would be worse than 4 Megapixel.

# Photo Mode : Setting Various Functions

## *Setting the Flash*

The Flash only works in Photo mode and allows the user to take photographs in dark places such as during the night, shaded or dark areas and indoors.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

**2. Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The Photo Capture screen appears.

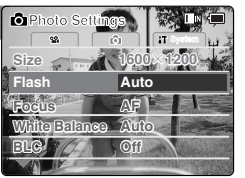
**3. Press the [MENU] button.**

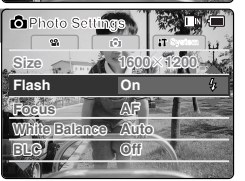
**4. Move the [W/T] button to select <Flash> and press the [▶] button.**

**5. Move the [W/T] button to select the desired setting and press the [OK] button.**
- ◆ **Auto**: Set the flash automatically.
- ◆ **On(⚡)**: Turn on the flash.
- ◆ **Off(⊘)**: Turn off the flash.

**6. Press the [MENU] button to finish setting.**
- ◆ The icon of selected function is displayed.
- ◆ If you select <Auto>, no icon is displayed.

2

4



5



6

Notes

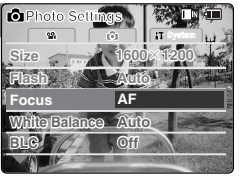
- ✤ If you select [◀ ] button in the menu, the previous menu appears.
- ✤ If the battery is low, the flash will not operate automatically.

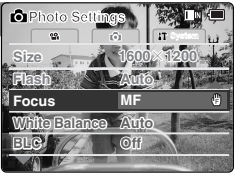
# Photo Mode : Setting Various Functions

## *Setting the Focus*

You can set the focus depending on the subject or the environment.
In most situations, you can record the best photo using AF(Auto Focus).

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
2. **Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
   - The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - The Photo Capture screen appears.
3. **Press the [MENU] button.**
4. **Move the [W/T] button to select <Focus> and press the [►] button.**
5. **Move the [W/T] button to select the desired setting and press the [OK] button.**
   - **AF**: Set the focus automatically.
   - **MF( )**: Set the focus manually.
6. **Press the [MENU] button to finish setting.**
   - The icon of selected function is displayed.
   - If you select <AF>, no icon is displayed.



### Manual Focus

**Adjust the focus using MF [+]/ [–] button to zoom in or out manually.**

- When a picture contains object that are both close and far away from the CAM.
- When a person is enveloped in fog or surrounded by snow.

Notes

- If you select [◄] button in the menu, the previous menu appears.
- Changes in the set-up made in the Video mode are all retained in the Photo mode.
- The focus is set to AF mode automatically when the CAM is turned off.

# Photo Mode : Setting Various Functions

## *Setting the White Balance*

The White Balance may vary depending on the lighting conditions.
The White Balance is used to preserve natural colours under different lighting conditions.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

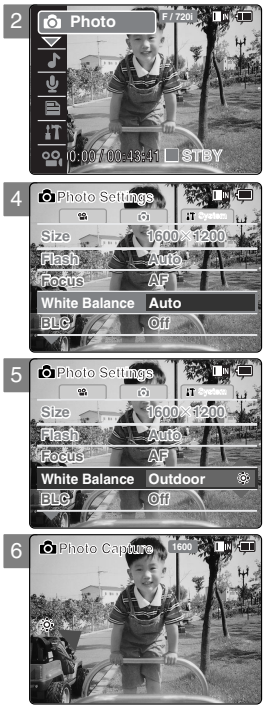
**2. Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The Photo Capture screen appears.

**3. Press the [MENU] button.**

**4. Move the [W/T] button to select <White Balance> and press the [▶] button.**

**5. Move the [W/T] button to select the desired setting and press the [OK] button.**
- ◆ **Auto**: Adjust the colour depending on the condition automatically.
- ◆ **Hold( )**: Record with first selected colour without adjusting colour.
- ◆ **Outdoor( )**: Record with the balanced light. (Natural light)
- ◆ **Indoor( )**: Record with the balanced light. (Glow lamp, light in the studio or video light)

**6. Press the [MENU] button to finish setting.**
- ◆ The icon of selected function is displayed.
- ◆ If you select <Auto>, no icon is displayed.




Notes

- ❖ If you select [◀ ] button in the menu, the previous menu appears.
- ❖ Changes in the set-up made in the Video mode are all retained in the Photo mode.

# Photo Mode : Setting Various Functions

## *Setting the BLC (Backlight Compensation)*

The Backlight Compensation function helps to make the subject brighter when the subject is in front of a window or the subject is too dark to distinguish. You can use this function when using the CAM in the bright backgrounds including snow scenes.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

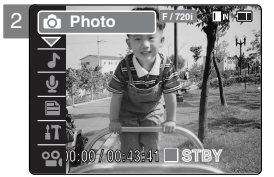
**2. Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The Photo Capture screen appears.

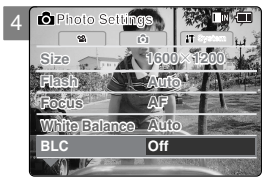
**3. Press the [MENU] button.**

**4. Move the [W/T] button to select <BLC> and press the [▶] button.**

**5. Move the [W/T] button to select the desired setting and press the [OK] button.**
- ◆ **Off**: Cancel the BLC function.
- ◆ **On(** BLC**)**: Set the BLC function.

**6. Press the [MENU] button to finish setting.**
- ◆ < BLC> is displayed.
- ◆ If you select <Off>, < BLC> is not displayed.



**Notes**

- ❖ If you select [◀ ] button in the menu, the previous menu appears.
- ❖ Changes in the set-up made in the Video mode are all retained in the Photo mode.
- ❖ The BLC is set to Off when the CAM is turned off.

# Photo Mode : Setting Various Functions

## *Setting the Backlight Auto Control*

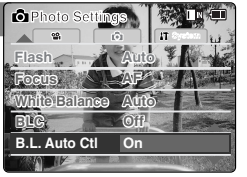
This function enables to save power consumption by controlling the brightness of LCD monitor automatically outdoors.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.

2. **Move [POWER/MODE Selector] down again to select *Photo* mode and press the [OK] button.**
   - The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - The Photo Capture screen appears.

3. **Press the [MENU] button.**

4. **Move the [W/T] button to select <B.L. Auto Ctl> and press the [▶] button.**




5. **Move the [W/T] button to select the desired setting and press the [OK] button.**
   - **Off**: Cancel the B.L. Auto Ctl function.
   - **On**: Set the B.L. Auto Ctl function. When using Backlight Auto Control function in the bright background outdoors, you can prevent unnecessary battery power consumption.

6. **Press the [MENU] button to finish setting.**

Notes

- If you select [◀ ] button in the menu, the previous menu appears.
- The captured photo file is not affected by Backlight Auto Control function.
- Changes in the set-up made in the Video mode are all retained in the Photo mode.
- If you set Backlight Auto Control function to On, the LCD monitor looks the same as an ordinary LCD monitor in bright lighting and sunlight outdoors.

# 3 MP3 Mode / Voice Recorder Mode / Using File Browser

## MP3 Mode

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## Voice Recorder Mode

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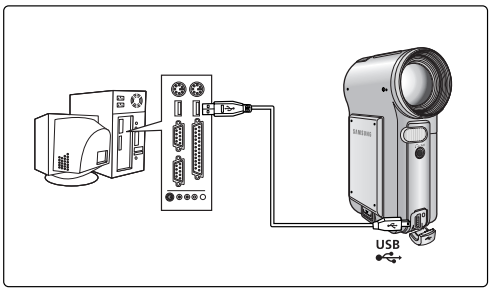
# MP3 Mode : Storing Music in the CAM

## *Copying Music files to the CAM*

You can transfer music files from your PC to the internal memory, SD, MMC, Memory Stick or Memory Stick Pro. For copying music files, the CAM must be connected to your PC with the USB cable. You can also transfer music files from Memory card to CAM directly.




1. **Connect the CAM to a PC with the USB cable. (Refer to page 106)**
   - Your computer recognizes this device and the symbol for removable drive will appear in 'My Computer'.
2. **Move [POWER/MODE Selector] down turn on the CAM.**
   - The USB Mode screen appears.
3. **Move the [W/T] button to select <Mass Storage> and press the [OK] button.**
4. **Double-click the new removable drive to open.**
5. **Select the MP3 folder and double-click to enter.**
6. **Copy the MP3 file you want from PC to the CAM.**
   - Refer to the folder structure on page 29 for copying MP3 files.

### Disconnecting USB Connection

After completing the data transfer, you must disconnect the cable in the following way.

1. Select the removable disk icon and click the right mouse button to select 'Safely Remove Hardware'.
2. Select 'Stop' and disconnect the USB cable when the pop-up screen disappears.

Notes

- The way of transferring, playing with a Memory Card is same as that of internal memory.
- If the CAM does not recognise the USB device when the USB cable is connected to USB Port on the front panel of the PC, connect the USB cable to USB Port on the rear panel of the PC.

# MP3 Mode : Playing

## *Playing Music files*

You can hear the music file in internal memory or external memory(Memory Card).

1. **Connect the earphones to the CAM.**
   - ◆ You can also hear the music from the Built-in speaker without the earphones.
2. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.
3. **Move [POWER/MODE Selector] down again to select *MP3* mode and press the [OK] button.**
   - ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - ◆ The music list appears.
4. **Move the [W/T] button to find the music you want to hear and press the [OK] button.**
   - ◆ The selected music is played.
5. **Press the [OK] button again to stop hearing music.**
   - ◆ Each time you press the [OK] button, play or pause is selected repeatedly.

### The use of [◀/▶] button

- ✣ **Press the [◀] button**
  Within 2 seconds after starting playback - Previous file plays.
  2 seconds after starting playback - Current file starts again.
- ✣ **Press the [▶] button**
  The next file appears.

Notes

- ✣ '----' is displayed depending on the title of MP3 file.
- ✣ In MP3 playback mode, a file name may not be displayed correctly.
  In this case, rename the file name using English characters only.

# MP3 Mode : Selecting File Options

## *Setting Repeat Play*

You can play the only one or all music repeatedly.

**1. Connect the earphones to the CAM.**
- ◆ You can also hear the music from the Built-in speaker without the earphones.

**2. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

**3. Move [POWER/MODE Selector] down again to select *MP3* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The music list appears.

**4. Move the [W/T] button to select an MP3 file to repeat.**

**5. Press the [MENU] button. Move the [W/T] button to select <Repeat > and press the [OK] button.**

**6. Move the [W/T] button to select desired setting and press the [OK] button.**
- ◆ **No**: Cancel the Repeat Play function.
- ◆ **One**: One file is repeated.
- ◆ **All**: All files are repeated.

**7. Press the [MENU] button to finish setting.**
- ◆ The icon of the selected Repeat Play setting is displayed on the LCD monitor. If you select <No>, no icon is displayed.

Note

✣ If you select [◀] button in the menu, the previous menu appears.

# MP3 Mode : Selecting File Options

## *Deleting Music files*

You can delete the music file you want.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.

2. **Move [POWER/MODE Selector] down again to select *MP3* mode and press the [OK] button.**
   - ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - ◆ The music list appears.

3. **Move the [W/T] button to select a MP3 file you want to delete.**

4. **Press the [MENU] button. Move the [W/T] button to select <Delete> and press the [OK] button.**

5. **Move the [W/T] button to select the followings and press the [OK] button.**
   - ◆ **Selected**: The selected music file is deleted.
   - ◆ **All**: All music files are deleted.
   - ◆ **Cancel**: Cancel deleting music files.

Notes

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ The locked file can not be deleted.

# MP3 Mode : Selecting File Options

## *Locking Music files*

You can lock the important music file not to be deleted.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**

- The Video Record screen appears.

**2. Move [POWER/MODE Selector] down again to select *MP3* mode and press the [OK] button.**

- The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- The music list appears.

**3. Move the [W/T] button to select a MP3 file you want to lock.**

**4. Press the [MENU] button.**
**Move the [W/T] button to select <Lock> and press the [OK] button.**

**5. Move the [W/T] button to select the followings and press the [OK] button.**

- **Selected**: The selected music file is locked.
- **All**: All music files are locked.
- **Cancel**: Cancel locking music files.

Notes

- If you select [◀] button in the menu, the previous menu appears.
- The < 🔒 > icon is displayed on the locked file.

# MP3 Mode : Selecting File Options

## *Copying Music files*

You can copy the music file to the internal or external memory.

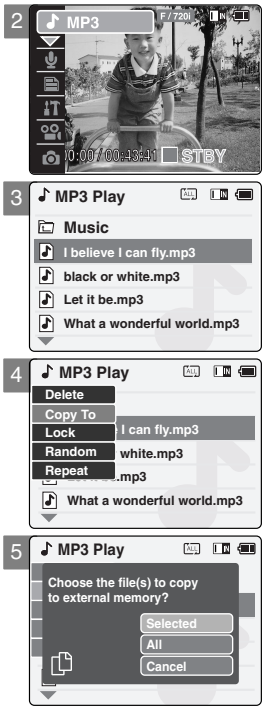
1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.

2. **Move [POWER/MODE Selector] down again to select *MP3* mode and press the [OK] button.**
   - The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - The music list appears.

3. **Move the [W/T] button to select a MP3 file you want to copy.**

4. **Press the [MENU] button. Move the [W/T] button to select <Copy To> and press the [OK] button.**
   - If you selected the Storage type 'External', the file is copied to 'Internal' and vice versa.

5. **Move the [W/T] button to select the followings and press the [OK] button.**
   - **Selected**: Copy the selected music file.
   - **All**: Copy all music files.
   - **Cancel**: Cancel copying music files.




Notes

- If you select [◀] button in the menu, the previous menu appears.
- When copying, make sure to check the Storage Type. (Refer to page 32)
- If the Memory Card is not inserted, you cannot select <Copy To>.

# MP3 Mode : Selecting File Options

## *Setting Random Play*

You can play the music files at random.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.

2. **Move [POWER/MODE Selector] down again to select *MP3* mode and press the [OK] button.**
   - The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - The music list appears.

3. **Press the [MENU] button.**
   **Move the [W/T] button to select <Random> and press the [OK] button.**

4. **Move the [W/T] button to select the desired setting, and press the [OK] button.**
   - **Yes:** Set the Random Play Function.
   - **No:** Cancel the Random Play Function.

# Voice Recorder Mode : Recording

## *Recording Voice*

You can record voice using the built-in microphone in the CAM.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**

- The Video Record screen appears.

**2. Move [POWER/MODE Selector] down again to select *Voice Recorder* mode and press the [OK] button.**

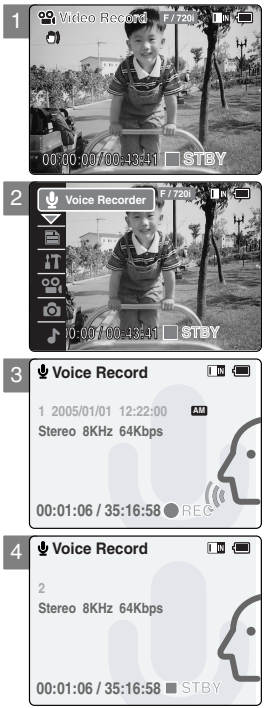
- The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- The Voice Record screen appears.

**3. Press the [Record/Stop] button to record voice.**

- The elapsed time and <● REC> is displayed. It starts recording.

**4. Press the [Record/Stop] button to stop recording voice.**

- <■ STBY> is displayed and it stops recording.



# Voice Recorder Mode : Playing

## *Playing Voice files*

You can hear the voice file using the built-in speaker or connecting earphones.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
2. **Move [POWER/MODE Selector] down again to select *Voice Recorder* mode and press the [OK] button.**
   - The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - The Voice Record screen appears.
3. **Press the [OK] button.**
   - The voice file list appears.
4. **Move the [W/T] button to select a voice file you want to play.**
5. **Press the [OK] button to play the recorded voice.**
   - Press the [OK] button to pause playing.

### The button you use when playing the recorded voice file

[OK] button : Play or pause the voice file
[◀] button : Reverse searching / Move to previous file
[▶] button : Forward searching / Move to next file

# Voice Recorder Mode : Selecting File Options

## *Deleting Voice files*

You can delete voice files you want.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

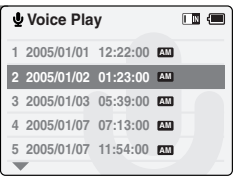
**2. Move [POWER/MODE Selector] down again to select *Voice Recorder* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The Voice Record screen appears.

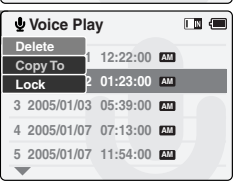
**3. Press the [OK] button.**
- ◆ The voice file list appears.

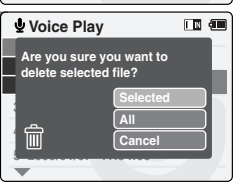
**4. Move the [W/T] button to select a voice file you want to delete.**

**5. Press the [MENU] button.**
**Move the [W/T] button to select <Delete> and press the [OK] button.**

**6. Move the [W/T] button to select the followings and press the [OK] button.**
- ◆ **Selected**: The selected voice file is deleted.
- ◆ **All**: All voice files are deleted.
- ◆ **Cancel**: Cancel deleting voice files.




Notes

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ The locked file can not be deleted.

# Voice Recorder Mode : Selecting File Options

## *Locking Voice files*

You can lock the important voice file not to be deleted.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

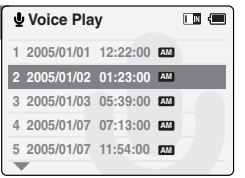
**2. Move [POWER/MODE Selector] down again to select *Voice Recorder* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The Voice Record screen appears.

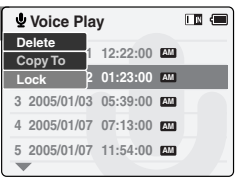
**3. Press the [OK] button.**
- ◆ The voice file list appears.

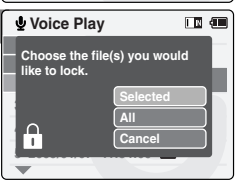
**4. Move the [W/T] button to select a voice file you want to lock.**

**5. Press the [MENU] button.**
**Move the [W/T] button to select <Lock> and press the [OK] button.**

**6. Move the [W/T] button to select the followings and press the [OK] button.**
- ◆ **Selected**: The selected voice file is locked.
- ◆ **All**: All voice files are locked.
- ◆ **Cancel**: Cancel locking voice files.




**Notes**

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ The < 🔒 > icon is displayed on the locked file.

# Voice Recorder Mode : Selecting File Options

## *Copying Voice files*

You can copy the voice file to the internal or external memory.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

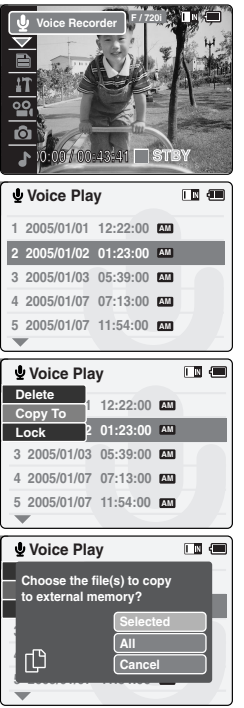
**2. Move [POWER/MODE Selector] down again to select *Voice Recorder* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The Voice Record screen appears.

**3. Press the [OK] button.**
- ◆ The voice file list appears.

**4. Move the [W/T] button to select a voice file you want to copy.**

**5. Press the [MENU] button.**
**Move the [W/T] button to select <Copy To> and press the [OK] button.**
- ◆ If you selected the Storage type 'External', the file is copied to 'Internal' and vice versa.

**6. Move the [W/T] button to select the followings and press the [OK] button.**
- ◆ **Selected**: Copy the selected voice file.
- ◆ **All**: Copy all voice files.
- ◆ **Cancel**: Cancel copying voice files.




Notes

- ❖ If you select [◄] button in the menu, the previous menu appears.
- ❖ If a Memory Card is not inserted, you cannot select <Copy To>.

# Using File Browser

## *Deleting Files or Folders*

You can delete the file(AVI, MP3, JPG, WAV) or folders you recorded.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**

- The Video Record screen appears.

**2. Move [POWER/MODE Selector] down again to select *File Browser* mode and press the [OK] button.**

- The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- The File Browser screen appears.

**3. Move the [W/T] button to select the folder or the file you want to delete. Press the [OK] button.**

- Press the [MENU] button if you want to delete the selected folder.
- Perform these steps repeatedly until the file you want to delete appears.

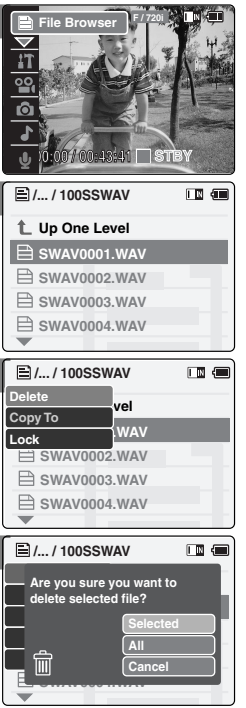
**4. Press the [MENU] button. Move the [W/T] button to select <Delete> and press the [OK] button.**

**5. Move the [W/T] button to select the setting you want. Press the [OK] button.**

- **Selected**: The selected file is deleted.
- **All**: All files are deleted.
- **Cancel**: Cancel deleting files.

Note

- If you select [◀] button in the menu, the previous menu appears.



# Using File Browser

## *Locking Files*

You can lock the important files not to be deleted.

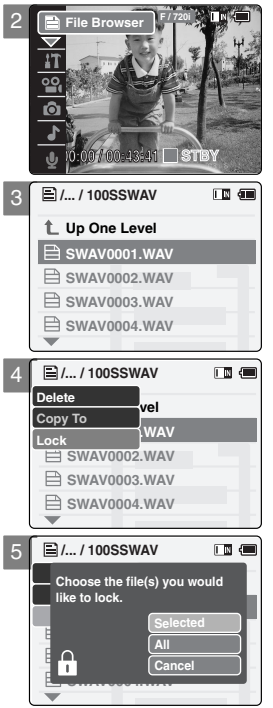
**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

**2. Move [POWER/MODE Selector] down again to select *File Browser* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The File Browser screen appears.

**3. Move the [W/T] button to select the file you want to lock. Press the [OK] button.**
- ◆ Perform these steps repeatedly until the file you want to lock appears.

**4. Press the [MENU] button. Move the [W/T] button to select <Lock> and press the [OK] button.**

**5. Move the [W/T] button to select the followings. Press the [OK] button.**
- ◆ **Selected**: The selected file is locked.
- ◆ **All**: All files are locked.
- ◆ **Cancel**: Cancel locking files.




Notes

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ You can't lock folders.
- ❖ The < 🔒 > icon is displayed on the locked file.

# Using File Browser

## *Copying Files or Folders*

You can copy a file or folder to the internal or external memory.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

**2. Move [POWER/MODE Selector] down again to select *File Browser* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The File Browser screen appears.

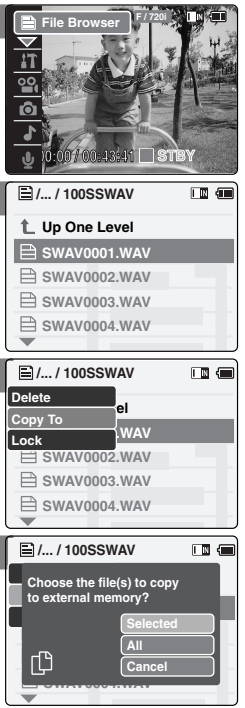
**3. Move the [W/T] button to select the file or the folder you want to copy. Press the [OK] button.**
- ◆ Press the [MENU] button if you want to copy the selected folder.
- ◆ Perform these steps repeatedly until the file you want to copy appears.

**4. Press the [MENU] button.**
**Move the [W/T] button to select <Copy To> and press the [OK] button.**
- ◆ If you selected the Storage type 'External', the file is copied to 'Internal' and vice versa.

**5. Move the [W/T] button to select the followings. Press the [OK] button.**
- ◆ **Selected**: Copy the selected file.
- ◆ **All**: Copy all files.
- ◆ **Cancel**: Cancel copying files.

Notes

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ When copying, make sure to check the Storage Type. (Refer to page 32)
- ❖ If the Memory Card is not inserted, you cannot select <Copy To>.



# Using File Browser

## *Viewing File Information*

You can see the file name, format, size and date.

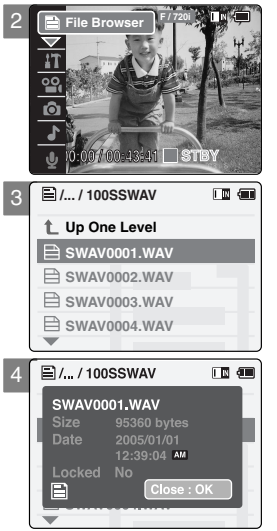
**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

**2. Move [POWER/MODE Selector] down again to select *File Browser* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The File Browser screen appears.

**3. Move the [W/T] button to select the file you want to see.**

**4. Press the [OK] button.**
- ◆ Perform these steps repeatedly until the file you want to see its file information appears.
- ◆ The screen with file name, format, size, date and locked state appears.

**5. Press the [OK] button to finish viewing file information.**
- ◆ If you select <Close> in the screen, the screen disappears.




Note

❖ You cannot view the folder information. You can view only the file information.

# 4 Setting the CAM

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# Setting the CAM : Adjusting the LCD Monitor

## *Adjusting the LCD Brightness*

You can adjust the brightness of the LCD monitor to compensate for ambient lighting conditions.

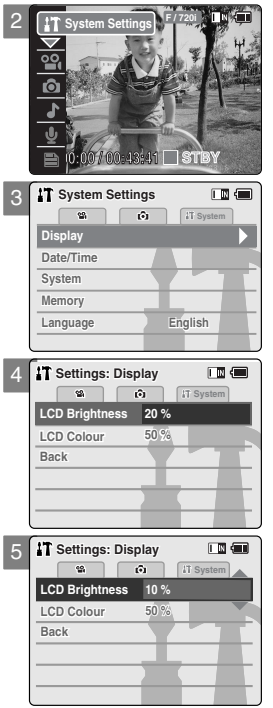
1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.

2. **Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**
   - ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - ◆ The System Settings menu appears.

3. **Move the [W/T] button to select <Display> and press the [▶] button.**

4. **Move the [W/T] button to select <LCD Brightness> and press the [▶] button.**

5. **Move the [W/T] button to select the brightness you want and press the [OK] button.**
   - ◆ You can adjust value for the LCD brightness between 0 -100%.




**Notes**

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ After you finish setting, press the [Record/Stop] button to exit from the menu screen.
- ❖ A brighter LCD monitor setting consumes more battery power.
- ❖ If it is too bright, adjust the LCD brightness.

# Setting the CAM : Adjusting the LCD Monitor

## *Adjusting the LCD Colour*

You can adjust the colour of the LCD monitor depending on the situation.

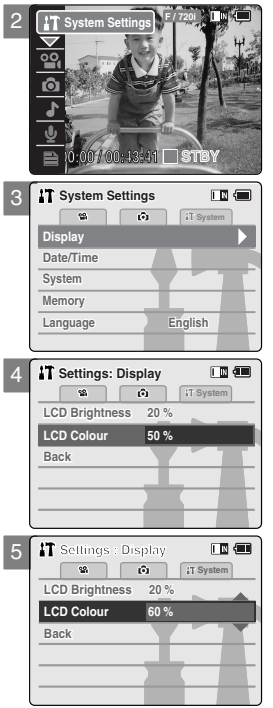
1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.

2. **Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**
   - ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - ◆ The System Settings menu appears.

3. **Move the [W/T] button to select <Display> and press the [▶] button.**

4. **Move the [W/T] button to select <LCD Colour> and press the [▶] button.**

5. **Move the [W/T] button to select the colour you want and press the [OK] button.**
   - ◆ You can adjust value for the LCD colour between 0 -100%.




Notes

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ After you finish setting, press the [Record/Stop] button to exit from the menu screen.

# Setting the CAM : Adjusting Date/Time

## *Setting Time*

The built-in clock creates the time stamp. You can adjust the time you use.

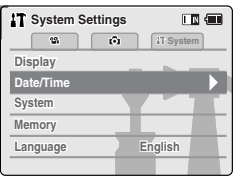
1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.

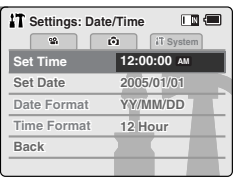
2. **Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**
   - ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - ◆ The System Settings menu appears.

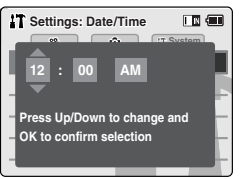
3. **Move the [W/T] button to select <Date /Time> and press the [▶] button.**

4. **Move the [W/T] button to select <Set Time> and press the [OK] button.**

5. **Move the [W/T] button to set time and press the [OK] button.**
   - ◆ Move the [W/T] button to change the setting and press the [▶] button to move to the next setting. Press the [OK] button to confirm selection.




Notes

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ After you finish setting, press the [Record/Stop] button to exit from the menu screen.
- ❖ Date and Time are recorded information. They are not displayed on the LCD monitor.

# Setting the CAM : Adjusting Date/Time

## *Setting Date*

The built-in calendar creates the date stamp. You can adjust the date you use.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**

- The Video Record screen appears.

**2. Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**

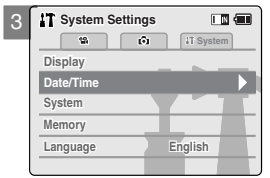
- The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- The System Settings menu appears.

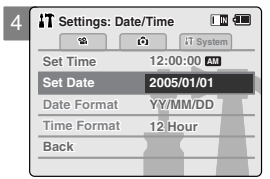
**3. Move the [W/T] button to select <Date /Time> and press the [▶] button.**

**4. Move the [W/T] button to select <Set Date> and press the [OK] button.**

**5. Move the [W/T] button to set date and press the [OK] button.**

- Move the [W/T] button to change the setting and press the [▶] button to move to the next setting. Press the [OK] button to confirm selection.



**Notes**

- If you select [◀] button in the menu, the previous menu appears.
- After you finish setting, press the [Record/Stop] button to exit from the menu screen.
- Date and Time are recorded information. They are not displayed on the LCD monitor.
- You can set Year up to 2037.

# Setting the CAM : Adjusting Date/Time

## *Setting Date Format*

You can select the date format to display.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

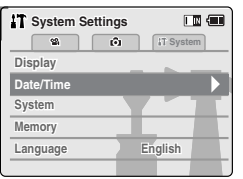
**2. Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The System Settings menu appears.

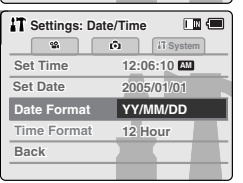
**3. Move the [W/T] button to select <Date /Time> and press the [▶] button.**

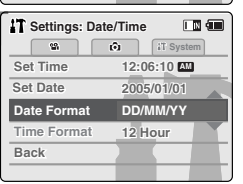
**4. Move the [W/T] button to select <Date Format> and press the [▶] button.**

**5. Move the [W/T] button to set the desired format and press the [OK] button.**
- ◆ **YY/MM/DD:** The date is displayed in order as Year/Month/Date.
- ◆ **DD/MM/YY:** The date is displayed in order as Date/Month/Year.
- ◆ **MM/DD/YY:** The date is displayed in order as Month/Date/Year.

2

3



4



5



Notes

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ After you finish setting, press the [Record/Stop] button to exit from the menu screen.

# Setting the CAM : Adjusting Date/Time

## *Setting Time Format*

You can select the time format to display.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.

2. **Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**
   - ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - ◆ The System Settings menu appears.

3. **Move the [W/T] button to select <Date /Time> and press the [▶] button.**

4. **Move the [W/T] button to select <Time Format> and press the [▶] button.**

5. **Move the [W/T] button to set the desired format and press the [OK] button.**
   - ◆ **12 Hour:** The time is displayed as the unit of 12 hours.
   - ◆ **24 Hour:** The time is displayed as the unit of 24 hours.

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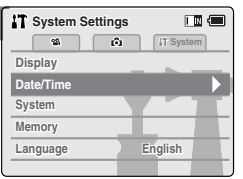
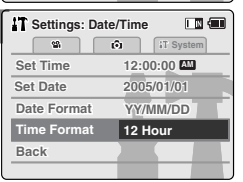



4
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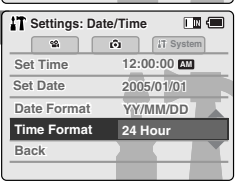



Notes

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ After you finish setting, press the [Record/Stop] button to exit from the menu screen.

# Setting the CAM : Setting the System

## *Setting the Auto Shut off*

To save energy or battery, you can set the Auto Shut off function.

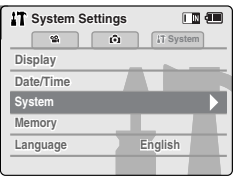
1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.

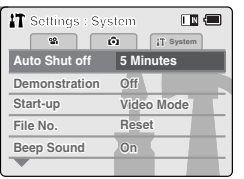
2. **Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**
   - The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - The System Settings menu appears.

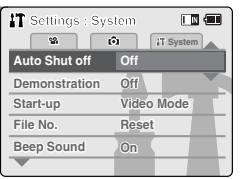
3. **Move the [W/T] button to select <System> and press the [▶] button.**

4. **Move the [W/T] button to select <Auto Shut off> and press the [▶] button.**

5. **Move the [W/T] button to set the desired setting and press the [OK] button.**
   - **5 Minutes:** The CAM turns off after 5 minutes.
   - **Off:** Cancel the Auto Shut off function.




Notes

- If you select [◀] button in the menu, the previous menu appears.
- After you finish setting, press the [Record/Stop] button to exit from the menu screen.
- The <Auto Shut off> function cannot be operated if you connect the Power Adapter to the CAM. It can be only operated when you insert Battery Pack into the CAM.

# Setting the CAM : Setting the System

## *Setting the Demonstration Function*

Demonstration function will allow you to view all the functions that the CAM supports.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.

2. **Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**
   - The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - The System Settings menu appears.

3. **Move the [W/T] button to select <System> and press the [▶] button.**

4. **Move the [W/T] button to select <Demonstration> and press the [▶] button.**

5. **Move the [W/T] button to set the desired setting and press the [OK] button.**
   - **Off:** Cancel the Demonstration function.
   - **5 Minutes:** Start the Demonstration function in 5 minutes.
   - **Play Now:** Start the Demonstration function now.

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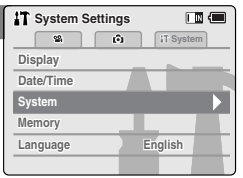
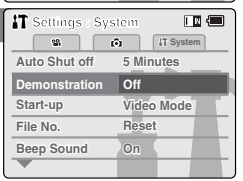
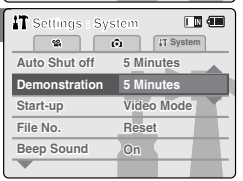



4



5



Notes

- If you select [◀] button in the menu, the previous menu appears.
- After you finish setting, press the [Record/Stop] button to exit from the menu screen.
- If you set the Demonstration function, it operates only in Video Record mode.

# Setting the CAM : Setting the System

## *Setting Start-up Mode*

You can select the starting mode displayed when you turn the CAM on.

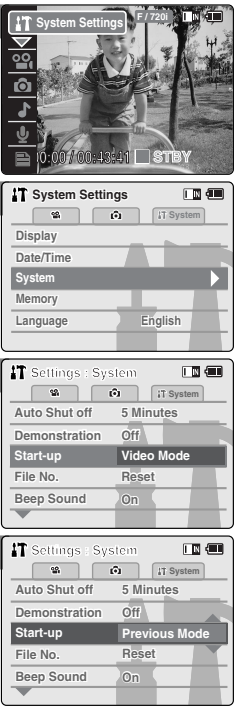
1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.

2. **Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**
   - The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - The System Settings menu appears.

3. **Move the [W/T] button to select <System> and press the [▶] button.**

4. **Move the [W/T] button to select <Start-up> and press the [▶] button.**

5. **Move the [W/T] button to set the desired setting and press the [OK] button.**
   - **Video Mode:** The CAM starts up in the Video Mode.
   - **Previous Mode:** The CAM starts up in the mode you used last.




Notes

- If you select [◀] button in the menu, the previous menu appears.
- After you finish setting, press the [Record/Stop] button to exit from the menu screen.
- Make sure that the start-up mode is set to the selected mode when turning on the CAM again.

# Setting the CAM : Setting the System

## *Setting the File No. Function*

You can set the file numbers so that they reset each time Memory Card is formatted, or so that they count up continuously.

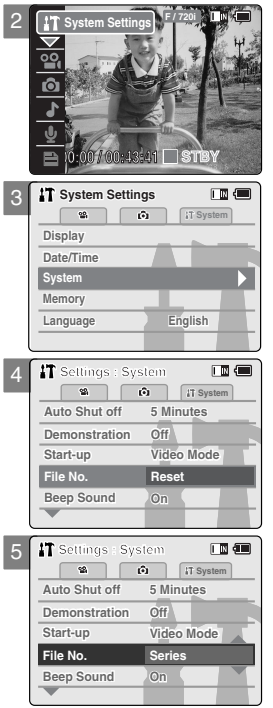
**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

**2. Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The System Settings menu appears.

**3. Move the [W/T] button to select <System> and press the [▶] button.**

**4. Move the [W/T] button to select <File No.> and press the [▶] button.**

**5. Move the [W/T] button to select the desired setting and press the [OK] button.**
- ◆ **Reset**: When the Memory Card is formatted, the file number resets to its default value. (100-0001)
- ◆ **Series**: Numbering is continuous between the Memory Cards, so that the first file number assigned on a new Memory Card is 1 more than the last file number assigned on the previous Memory Card.




Notes

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ After you finish setting, press the [Record/Stop] button to exit from the menu screen.
- ❖ When you set file number to 'Series', each file is assigned a different number avoiding duplication of numbers. It is convenient when you want to manage your files on a PC.

# Setting the CAM : Setting the System

## *Setting the Beep Sound*

You can set the beep sound on/off. When on, a beep will sound every time a button is pressed.

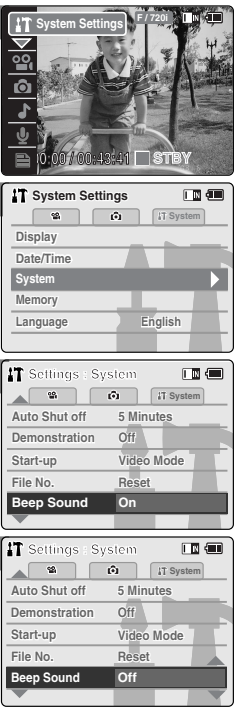
1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - ◆ The Video Record screen appears.

2. **Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**
   - ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - ◆ The System Settings menu appears.

3. **Move the [W/T] button to select <System> and press the [▶] button.**

4. **Move the [W/T] button to select <Beep Sound> and press the [▶] button.**

5. **Move the [W/T] button to select the desired setting and press the [OK] button.**
   - ◆ **On:** Turn the beep sound on.
   - ◆ **Off:** Turn the beep sound off.




**Notes**

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ After you finish setting, press the [Record/Stop] button to exit from the menu screen.
- ❖ When the Earphones or Audio/Video cable is connected to the CAM, the beep sound function does not operate.

# Setting the CAM : Setting the System

## *Viewing Version Information*

You can see the information of the version.

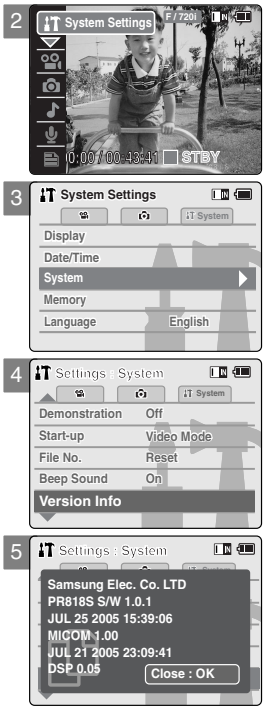
**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

**2. Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The System Settings menu appears.

**3. Move the [W/T] button to select <System> and press the [▶] button.**

**4. Move the [W/T] button to select <Version Info> and press the [OK] button.**
- ◆ The version of the CAM is displayed.

**5. Press the [OK] button to finish viewing version information.**
- ◆ If you select <Close> in the screen, the screen disappears.




Notes

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ After you finish viewing Version Information, press the [Record/Stop] button to exit from the menu screen.

# Setting the CAM : Setting Memory

## *Selecting the Storage Type*

Select the storage type(internal or external memory) before recording or taking pictures.

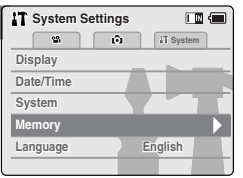
**1. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ The Video Record screen appears.

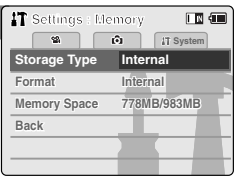
**2. Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**
- ◆ The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- ◆ The System Settings menu appears.

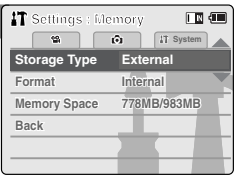
**3. Move the [W/T] button to select <Memory> and press the [▶] button.**
- ◆ If you didn't insert Memory Card, you cannot select 'External'.

**4. Move the [W/T] button to select <Storage Type> and press the [▶] button.**

**5. Move the [W/T] button to select the desired setting and press the [OK] button.**
- ◆ **Internal**: The video, photo, mp3 file or voice file is stored in internal memory.
- ◆ **External**: The video, photo, mp3 file or voice file is stored in external memory. (SD, MMC, Memory Stick or Memory Stick Pro).




**Notes**

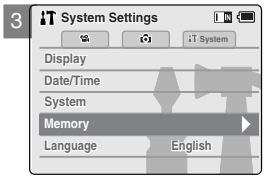
- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ If you insert a Memory Card when the CAM on, the pop-up screen about the memory type selection appears automatically.
- ❖ If you selected the Storage type 'External', the file is copied to 'Internal' and vice versa.
- ❖ The maximum recording time and capacity and the number of images is subject to change depending on the media. (Refer to pages 30~31)

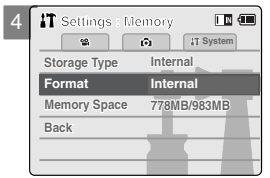
# Setting the CAM : Setting Memory

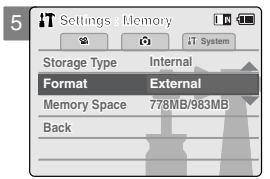
## *Formatting the Memory*

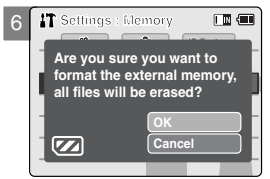
You can format the internal memory or the external memory to erase all files.

1. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
2. **Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**
   - The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
   - The System Settings menu appears.
3. **Move the [W/T] button to select <Memory> and press the [▶] button.**
4. **Move the [W/T] button to select <Format> and press the [▶] button.**
   - If you didn't insert Memory Card, you cannot select 'External'.
5. **Move the [W/T] button to select the desired setting and press the [OK] button.**
   - **Internal**: Format the internal memory.
     If you select <Internal>, the message is displayed to confirm.
   - **External**: Format the external memory.
     If you select <External>, the message is displayed to confirm.
6. **Press the [OK] button to format.**
   - Select <Cancel> to cancel formatting.




**Notes**

- If you select [◀] button in the menu, the previous menu appears.
- After you finish setting, press the [Record/Stop] button to exit from the menu screen.
- No guarantee can be provided to the Memory Card not formatted on this CAM. Make sure to format the memory card on the CAM.
- The former information can not be restored after formatting.

# Setting the CAM : Setting Memory

## *Viewing Memory Space*

You can view usable memory space and total memory space of the CAM.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**

- The Video Record screen appears.

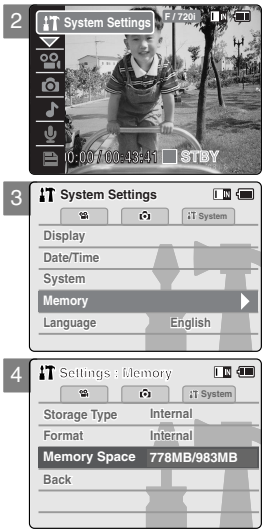
**2. Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**

- The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- The System Settings menu appears.

**3. Move the [W/T] button to select <Memory> and press the [▶] button.**

**4. Move the [W/T] button to select <Memory Space>.**

- Usable memory space and total memory space are displayed.




Notes

- If you select [◀] button in the menu, the previous menu appears.
- After you finish viewing Memory Space, press the [Record/Stop] button to exit from the menu screen.
- Memory Space takes the form of 0000MB/0000MB. (VP-M2200S(B) only)
- Memory Space takes the form of 000MB/493MB. (VP-M2050S(B) only)

# Setting the CAM : Setting Language

## *Selecting Language*

You can select the desired language to display the menu screen and the messages.

**1. Move [POWER/MODE Selector] down to turn on the CAM.**

- The Video Record screen appears.

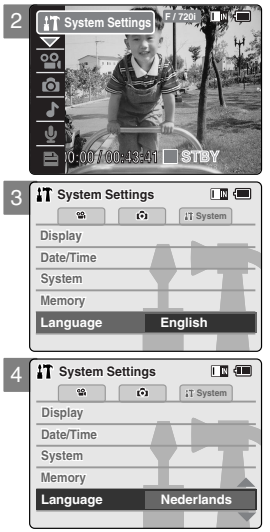
**2. Move [POWER/MODE Selector] down again to select *System Settings* mode and press the [OK] button.**

- The system is automatically converted into the selected mode in two seconds even when the [OK] button is not pressed.
- The System Settings menu appears.

**3. Move the [W/T] button to select <Language> and press the [▶] button.**

**4. Move the [W/T] button to select the desired setting and press the [OK] button.**

- English / Español / Français / Português / Deutsch / Italiano / Nederlands / Polski / Русский / 한국어 / 中文 / Iran / Arab / Magyar / ไทย / Українська / Svenska




Notes

- If you select [◀] button in the menu screen, it returns to the previous screen.
- After you finish setting, press the [Record/Stop] button to exit from the menu screen.

# Setting the CAM : Using USB Mode

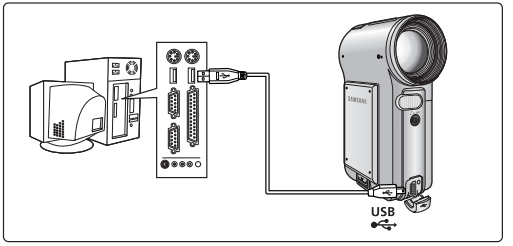
## *Transferring files to a computer*

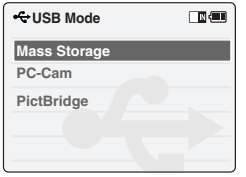
**1. Connect the CAM to the PC with the USB cable.**

**2. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ USB mode screen appears automatically.

**3. Move the [W/T] button to select <Mass Storage> and press the [OK] button.**
- ◆ Your PC doesn't recognise the USB device automatically. You may install the USB Driver manually on Windows 98SE operating system.

**4. Disconnect the USB cable if you finish transferring.**




Notes

- ❖ If you disconnect the USB cable from the PC or the CAM during the data transfer, the data transfer will stop and the data may be damaged.
- ❖ If you connect the USB cable to a PC using a USB HUB or with other device at the same time, it might cause conflict and may not work properly. If this occurs, remove all other devices and try the connection again.
- ❖ If the CAM does not recognise the USB device when the USB cable is connected to USB Port on the front panel of the PC, connect the USB cable to USB Port on the rear panel of the PC.

# Setting the CAM : Using USB Mode

## *USB connection to a computer*

High Speed USB is not guaranteed except for Microsoft(Windows) or Apple(Mac OS X) or supplied Driver.

- Windows 98SE/ME: Full Speed USB
- Windows 2000: Over Service Pack 4 - High Speed USB
- Windows XP: Over Service Pack 1 - High Speed USB
- Mac OS X: Over 10.3 - High Speed USB

## *System Environment*

| | Windows Environment | | Macintosh Environment | |
|---|---|---|---|---|
| | **Minimum** | **Recommended** | **Minimum** | **Recommended** |
| **CPU** | Pentium III, 600MHz | Pentium 4, 2GHz | G3 500MHz | G4 Processor |
| **OS** | Windows 98SE/ME | Windows 2000/XP | Mac OS 10.2 | Mac OS 10.3 |
| **Memory** | 128MB | 512MB or above | 128MB | 512MB or above |
| **Free space on the hard disk** | 200MB(For applications only. Apart from this, 1GB or more free space | 2GB or above | 200MB(For applications only. Apart from this, 1GB or more free space | 2GB or above |
| **Display Resolution** | 800x600 dots 16-bit colour | 1024x768 dots 24-bit colour | 800x600 dots 16-bit colour | 1024x768 dots 24-bit colour |
| **USB** | USB 1.1 | USB 2.0 High Speed | USB 1.1 | USB 2.0 High Speed |

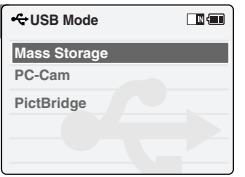
Notes

- Not all PCs configured with the above environment are guaranteed to operate properly.
- PCs used via a USB hub or with a USB card are out of the scope of guarantee.
- If your OS is Windows 2000/XP, log in as the [Administrator(administrator of the PC)] (or a user with the equivalent privileges) to install the OS.
- If the capacity of PC is low, the video file may not be played normally or the file is often stopped.
- If the capacity of PC is low, it may take long time to edit the video file.
- Intel® Pentium III™ or Pentium 4™ is a trademark of the Intel Corporation.
- Mac, Macintosh and Mac OS are trademarks of Apple Computer, Inc.
- Windows® is a registered trademark of the Microsoft® Corporation.
- All other brands and names are property of their respective owners.

# Setting the CAM : Using USB Mode

## *Using PC Cam*

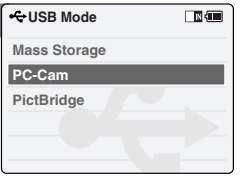
You can use this CAM as a PC camera for video chatting, video conference and other PC camera applications.
To use the PC Camera function, the DV Driver, Video Codec and DirectX 9.0. programmes must be installed in the PC. (Refer to page 116)




**1. Connect the CAM to the PC with the USB cable.**

**2. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ USB mode screen appears automatically.

**3. Move the [W/T] button to select <PC-Cam> and press the [OK] button.**
- ◆ The CAM can be used as a PC Camera for programs such as Windows Messenger.




Notes

- ❖ The CAM can be used as a PC Camera for programs such as Windows Messenger.
  The use of the PC Cam varies depending on the Software. Refer to the documentation of the respective software products.
- ❖ If the PC does not recognise the USB device when the USB cable is connected to USB Port on the front panel of the PC, connect the USB cable to USB Port on the rear panel of the PC.

# Setting the CAM : Using USB Mode

## *Connecting the CAM to a Printer*

By connecting the CAM to printers with PictBridge support (sold separately), you can send images from the internal memory or external memory (SD, MMC, Memory Stick or Memory Stick Pro) directly to the printer with a few simple operations.

**1. Connect the CAM to the printer with PictBridge support with the USB cable.**

**2. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ USB mode screen appears automatically.

**3. Move the [W/T] button to select <PictBridge> and press the [OK] button.**

**4. Move the [W/T] button to select <Date> and press the [▶] button.**

**5. Move the [W/T] button to select <On> or <Off> and press the [OK] button.**

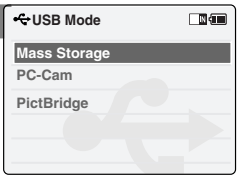
**6. Move the [W/T] button to select <Copies> and press the [▶] button.**

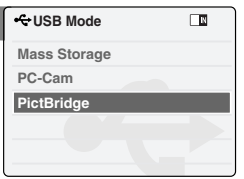
**7. Move the [W/T] button to select desired number and press the [OK] button.**
- ◆ You can select the number of copy from 1 to 99.

**8. Move the [W/T] button to select <Print> and press the [OK] button.**

Notes

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ If you want to select the next or previous photo, select <Next Photo> or <Previous Photo> using the [W/T] button and press the [OK]button.
- ❖ Refer to the User's Manual of the printer for more detailed guide on the printing procedures.
- ❖ Printing may not be performed depending on types of printers.
  In this case, download JPEG file to the PC directly and print it.



# 5 Miscellaneous Information

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Connecting the CAM to VCR . . . . . 112
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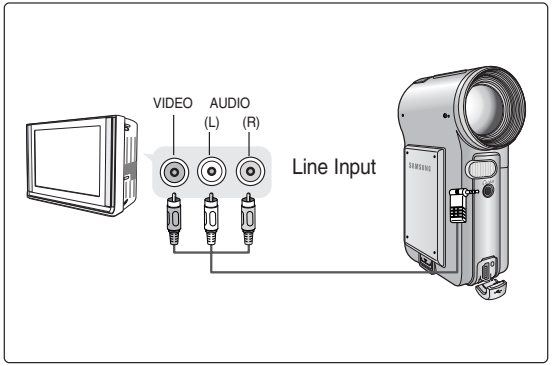
# Miscellaneous Information : Connecting the CAM with other Devices

## *Connecting the CAM to TV*

You can connect the CAM to a TV set directly to play video files on TV monitor.




1. **Connect the Audio/Video cable to the Earphones and AV jack of the CAM.**
2. **Connect the Audio/Video cable to the external input terminal of your TV set by matching the colours of the terminals.**
3. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
4. **Press the [OK] button to play the video file in Video Record mode.**
5. **Move [W/T, ◄/►] button to find the video file you want to play.**
6. **Press the [OK] button to play the video file.**

Notes

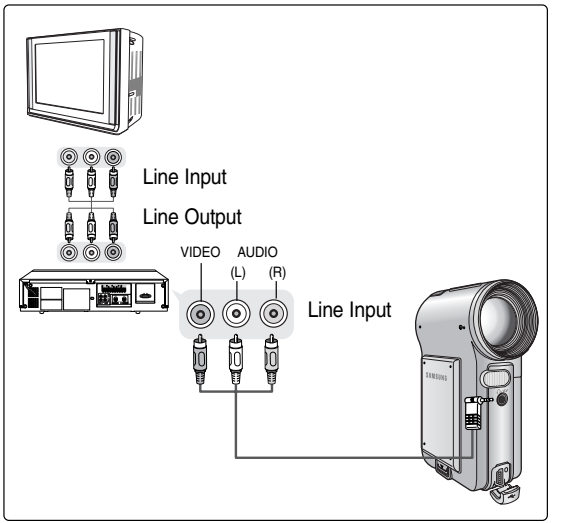
- You can stop and play video files using the same button as used for playing video files on the LCD monitor of the CAM. (Refer to pages 38 to 39)
- If you connect a Mono AV cable to the CAM, the video file cannot be played.
- You can playback the video files and also view the photo files on TV screen.

# Miscellaneous Information : Connecting the CAM with other Devices

## *Connecting the CAM to VCR*

You can connect the CAM to VCR to copy the recorded files to the video tape.

1. **Connect the Audio/Video cable to the Earphones and AV jack of the CAM.**
2. **Connect the Audio/Video cable to the external input terminal of your VCR set by matching the colours of the terminals.**
3. **Connect the Audio/Video cable to the Video line Output and TV line Input.**
4. **Select the 'Input' on the TV, VCR or the remote control of TV.**




Note

- If TV set has no Line Input, you cannot view the output screen of the CAM.

# Miscellaneous Information : Connecting the CAM with other Devices

## *Copying Video files to a VCR Tape*

You can copy your recorded files to a regular blank video tape.
Connect the CAM to a VCR using the Audio/Video cable before recording. (Refer to page 112)

1. **Insert the blank video tape to the VCR and select 'Line Input'.**
2. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record Screen appears.
3. **Press the [OK] button in the *Video Record* mode and move to Video Play mode.**
4. **Press the [W] button to move to the Multi-play screen.**
5. **Move the [W/T, ◀/▶] button to select the video file you want to copy and press the [OK] button.**
6. **Press the [Record/Stop] button on the VCR to start recording.**
7. **Press the [OK] button on the CAM to finish copying.**

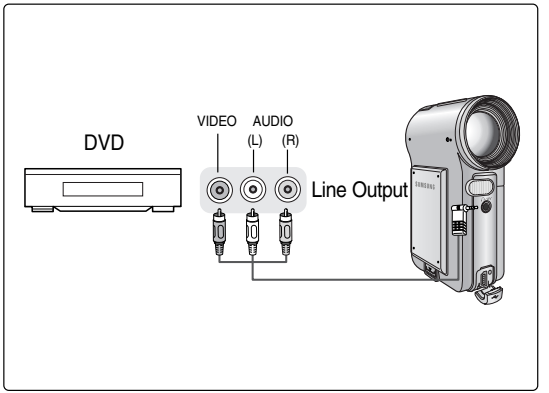
Notes

- Refer to operating instructions of your TV or VCR for detailed information on connecting external devices.
- You can stop and play video files using the same button as used for playing video files on the LCD monitor of the CAM. (Refer to pages 38 to 39)
- If you operate the buttons of the menu when copying, it is copied also. Be careful not to operate the buttons.
- If you press the [DISPLAY] button, you can copy without OSD indicators.

# Miscellaneous Information : Connecting the CAM with other Devices

## *Recording unscramble contents from other digital devices*

You can connect other external digital devices to CAM to record unscrambled contents.




1. **Connect the Audio/Video cable to the Earphone and AV jack of the CAM.**
2. **Connect the Audio/Video cable to the external output terminal of your digital devices (DVD Player, DVC, etc.) by matching the cable to the colours of the terminals.**
3. **Move [POWER/MODE Selector] down to turn on the CAM.**
   - The Video Record screen appears.
4. **Press the [MENU] button.**
   **Move the [W/T] button to select <Record Mode> and press the [▶] button.**
5. **Move the [W/T] button to select the desired record mode and press the [OK] button.**
6. **Move the [W/T] button to select <Line In/Out> and press the [▶] button.**
7. **Move the [W/T] button to select <In> and press the [OK] button.**
8. **Play back the other digital devices.**
9. **Press the [Record/Stop] button of the CAM to start recording.**
10. **To stop recording, press the [Record/Stop] button again.**

Note

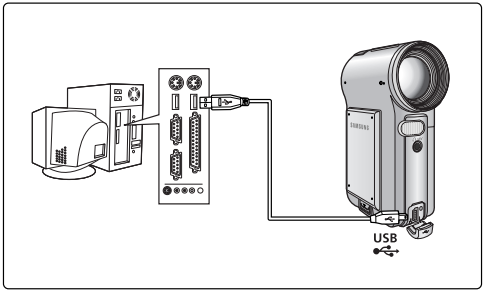
- The quality of an input signal recorded through the Line In terminal cannot be guaranteed unless it comes from digital devices (DVD Player, DVC, etc.).

# Miscellaneous Information : Connecting the CAM with other Devices

## *Connecting the CAM to a PC using the USB cable*

You can connect the CAM to a PC that supports USB connections.
Use the provided USB cable for connection to a PC.

1. **Connect the provided USB cable to USB Port of the CAM.**
2. **Connect the other side of the USB cable to the USB port of your PC.**
3. **Move [POWER/MODE Selector] down to turn on the CAM.**




Notes

- If the CAM does not recognise the USB device when the USB cable is connected to USB Port on the front panel of the PC, connect the USB cable to USB Port on the rear panel of the PC.
- If you change file name of a video file recorded on the CAM and store it on the PC, and then if you transfer the file to the CAM again, the CAM cannot read the file and play back it.

# Miscellaneous Information : Installing Programs

## *Installing DV Media Pro 1.0*

You have to install DV Media Pro 1.0 to play back video files recorded by CAM or the transferred data by USB cable on your PC.

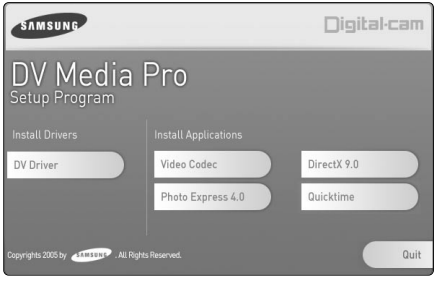
■ Installing Acrobat Reader
Install Acrobat Reader program, which is included on the CD (D:/Support/AcrobatReader/AcroReader51_ENU_full.exe).
DV Media Pro User's Manual is in English.
- Acrobat Reader program should be installed to view DV Media Pro User's Manual.
- The DV Media Pro User's Manual is included on the accompanying CD in Adobe's Portable Document Format (PDF). (The Acrobat Reader is a freeware product of Adobe Systems. Inc.)

### Windows

**1. Turn on your PC.**
- ◆ Quit all applications.

**2. Insert the program CD into the CD-ROM drive.**
- ◆ The Setup screen appears automatically.
- ◆ If not, press the <Start> button on the left bottom of the PC screen, and select <Run>. If the window of <Run> appears, enter 'D:/autorun.exe' (in case the CD-ROM driver is set to 'D:Drive') and press the [Enter] key.

**3. Click 'DV Driver' on the Setup screen.**
- ◆ The corresponding driver to a PC is installed automatically.
  - Driver Type
    USB removable Disk Driver (Windows 98SE only)
    USB PC-CAMERA Driver
    USB Streaming Driver (USB Interface for Data Transfer)




**4. Press <Confirm> to finish installing the program.**

**5. Click 'Video Codec' to install on the Setup screen.**

**6. Click 'DirectX 9.0' to install on the Setup screen.**
- ◆ When the installation is finished, the <Restart> appears. If you press [Finish], the PC is restarted.

Notes

- ❖ You have to install 'DV Driver', 'Video Codec' and 'DirectX 9.0' to run DV Media Pro 1.0 properly.
- ❖ Please refer to the User's Manual inside the CD ROM drive (D:/help) folder for more detailed guide on the installation procedures.
- ❖ Use DV Media Pro 1.0 REV4.1 or higher in this product.

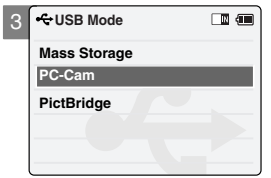
# Miscellaneous Information : Installing Programs

## *USB Interface for Data Transfer*

Connect the CAM and PC with the provided USB cable. You can record the Video file in PC in real-time.
USB transferring function can be used when DV Driver, Video Codec, DirectX 9.0 programs are already installed in the PC.
(Refer to page 116)

**1. Turn on your PC and insert the program CD into the CD-ROM drive.**

- Quit all applications.




**2. Connect the provided USB cable to the USB port of the CAM.**

**3. Move the [W/T] button to select <PC-Cam> and press the [OK] button.**

**4. Install and run the Ulead VIDEO STUDIO program provided along with the system.**
**The user of WINDOWS ME or XP can use the USB Interface for data transfer with the Windows Movie Maker program.**

- (C:/program files/Movie maker/moviemk.exe)

Note

- If the PC does not recognise the USB device when the USB cable is connected to USB Port on the front panel of the PC, connect the USB cable to USB Port on the rear panel of the PC.

# Miscellaneous Information : Connecting the CAM with other Devices

## Disconnecting USB Connection

After completing the data transfer, you must disconnect the cable in the following way.

1. Select the removable disk icon and click the right mouse button to select 'Safely Remove Hardware'.
2. Select 'Stop' and disconnect the USB cable when the pop-up screen disappears.

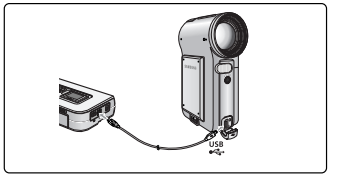
Notes

- If you disconnect the USB cable from the PC or the CAM during the data transfer, the data transfer will stop and the data may be damaged.
- If you connect the USB cable to a PC using a USB HUB or with other device at the same time, it might cause conflict and may not work properly. If this occurs, remove all other devices and try the connection again.
- The CAM may operates abnormally in the recommended system environment depending on the assembling of PC. For example, the video file is played abnormally.
- Once you select Mass Storage, PC-Cam or PictBridge, you cannot change the mode. Disconnect the USB cable or turn on the CAM again to change the mode.
- If you disconnect the USB cable, the message 'Now refresh file list' appears for 1 second.
- All operation mentioned on page 107 may not guaranteed in the system environment.

# Miscellaneous Information : Printing Photos

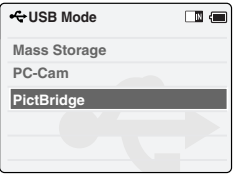
## *Printing with PictBridge Function*

With the PictBridge Support, you can control the printer directly through the CAM in order to print out stored pictures.
For direct printing of your stored pictures using the PictBridge function, you must connect the CAM to a PictBridge printer using a USB cable.



**1. Connect the CAM to the PictBridge printer with the USB cable.**

**2. Move [POWER/MODE Selector] down to turn on the CAM.**
- ◆ USB mode screen appears automatically.

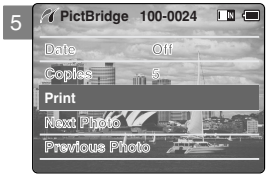



**3. Move the [W/T] button to select <PictBridge> and press the [OK] button.**

**4. Move the [W/T] button switch to select <Copies> and press the [OK] button.**

**5. Move the [W/T] button switch to select desired number and press the [OK] button.**
- ◆ You can select the number of copies from 1 to 99.

**6. Move the [W/T] button switch to select <Print> and press the [OK] button.**




Notes

- ❖ If you select [◀] button in the menu, the previous menu appears.
- ❖ If you want to select the next or previous photo, select <Next Photo> or <Previous Photo> using [W/T] button and press the [OK] button.
- ❖ For further details about printing photos, refer to the User's manual of the printer.
- ❖ If the PC does not recognise the USB device when the USB cable is connected to USB Port on the front panel of the PC, connect the USB cable to USB Port on the rear panel of the PC.
- ❖ Printing may not be performed depending on types of printers.
  In this case, download JPEG file to the PC directly and print it.

# Miscellaneous Information : Printing Photos

## *Printing Photos with DPOF Files*

DPOF (Digital Printing Order Format) defines the print information for the specific photos and number of each photo on the Memory Card. You can easily make prints on a DPOF compatible printer or order copies.

### Printing DPOF files of the Memory Card

1. Set the print information for the photo you want to print. (Refer to page 64)
2. Insert a memory card into the photo printer.
3. Follow the steps of the printer to print out photos.

Notes

- For further details about printing photos, refer to the User's manual of the printer.
- Printing may not be performed depending on types of printers.
  In this case, download JPEG file to the PC directly and print it.

# Maintenance : Cleaning and Maintaining the CAM

## *After using the CAM*

- **For the safekeeping of the CAM, follow these steps.**
  - ✓ Turn the CAM off.
  - ✓ Remove the Battery Pack (Refer to page 19).
  - ✓ Remove the Memory Card (Refer to page 33).
- **To prevent any damage to the LCD monitor, do not apply excessive force on its moving parts.**
- **Do not drop or in anyway shock the CAM.**
- **For prolonged use of the CAM, avoid using it in places subject to excessive humidity or dust.**
- **Do not leave the CAM in places subject to:**
  - ✓ Excessive humidity, steam, soot or dust.
  - ✓ Excessive shock or vibration.
  - ✓ Extremely high (over 50°C or 122°F) or extremely low (under 0°C or 32°F) temperatures.
  - ✓ Strong electromagnetic fields.
  - ✓ Direct sunlight or in a closed car on a hot day.
- **For the safe use of the Battery Pack, follow these.**
  - ✓ To conserve battery power, be sure to turn off the CAM when not in use.
  - ✓ Battery consumption may vary depending on the condition of use. Recording with many starts and stops, frequent zooming, and recording in low temperatures will shorten actual recording times.
  - ✓ Dispose of used Battery Packs promptly. Do not dispose of them in fire.
  - ✓ The Battery Pack will become warm during charging and use. This is not a malfunction.
  - ✓ The Battery Pack has a limited service life. If the period of use becomes noticeably shorter with a normal charge, the Battery Pack is at the end of its service life. Replace it with a new Battery Pack.
- **For the safe use of the Memory Card, follow these.**
  - ✓ The Memory Card should be stored away from heaters and other heat sources. Avoid storing Memory Cards under direct sunlight and avoid electromagnetic fields.
  - ✓ Do not power off any devices while transferring data, as this may destroy the data.
  - ✓ Back up your image data often to a hard disk or other permanent storage media.
  - ✓ Format the Memory Card periodically.
  - ✓ When formatting the Memory Card, format in the CAM.

# Maintenance : Cleaning and Maintaining the CAM

## *Cleaning the Body*

❖ **To Clean the Exterior of the CAM**

- ✓ To clean the exterior, use a soft dry cloth. Wipe the body gently.
  Do not apply excessive force when cleaning, gently rub the surface.
- ✓ The LCD monitor surface should not be pressed. Use a soft dry cloth to clean the surface.
- ✓ To clean the lens, use an optional air blower to blow out dirt and other small objects. Do not wipe the lens with cloth or your fingers. If necessary, use lens cleaning paper.
- ✓ Do not use thinner, alcohol or benzene for cleaning. Otherwise, the finish may be damaged.
- ✓ Cleaning should be done only after the Battery Pack has been removed, and other power sources have been disconnected.

Note

❖ If the lens looks dimmer, turn off the CAM and leave it for about 1 hour.

## *Using the Built-in Rechargeable Battery*

The CAM incorporates a rechargeable lithium cell that maintains the date and other settings even when the AC Power Adapter and the battery are removed. The rechargeable lithium cell is automatically recharged when the CAM is used.

### Charging the Built-in Rechargeable Battery

❖ If the CAM is not used at all, the cell runs down in 5 days. In this case, connect the AC Power Adapter to the CAM and move [POWER/MODE Selector] down to turn on the CAM. Then leave it for 24 hours.
After that, set the date and other settings again.

# Maintenance : Cleaning and Maintaining the CAM

## *Regarding the Battery*

- Battery pack performance decreases when the surrounding temperature is 10°C (50°F) or below, and shortens the battery life. In that case, do one of the following so that the durability of the battery life can be extended for a longer period of time.
  - Put the Battery Pack in a pocket to warm it up, and insert it in your CAM immediately prior to use.
  - Use a large capacity Battery Pack (Optional).
- Be sure to set the Power/Mode selector to OFF when not recording or playing back. The battery power is also consumed in standby, play back and pause mode.
- Have your Battery Packs ready for two or three times the expected recording time, and make trial recordings before make the actual recording.
- Do not expose the Battery Pack to water.
  The Battery Pack is not water resistant.
- Keep the battery out of reach of children. If it is swallowed, seek medical assistance immediately.
- Wipe the battery with a clean dry cloth to ensure proper contact.
- Do not pick up the battery using metal tools as this may cause a short circuit.
- Do not short the battery or dispose of the battery in fire. Do not disassemble the battery. The battery could explode or catch fire.
- Use only recommended batteries and accessories. Use of batteries not expressly recommended for this equipment may cause an explosion or leakage, resulting in fire, injury or damage to the surroundings.
- Install the battery according to the instructions. Improperly installed batteries can cause damage to the camcorder.
- When you do not use for a long time, remove the Battery Pack.
  Otherwise, the battery may leak. To avoid damage to the product, be sure to remove the battery when no charge remains.

# Maintenance : Cleaning and Maintaining the CAM

## *Using the CAM Abroad*

- Each country or region has its own electric and colour systems.
- Before using the CAM abroad, check the following items:

### Power Sources

- You can use the CAM in any country or area with the supplied AC Power Adapter where the power input range is 100V - 240V, 50/60Hz.
- Use a commercially available AC plug adapter if necessary, depending on the design of the local wall outlets.

### Colour System

- You can view your video files using the built-in LCD monitor.
  However, to view your recordings on a television set or to copy it to a video cassette recorder (VCR), the television set or the VCR must comply with PAL-compatible and have the appropriate Audio / Video ports. Otherwise, you may need to use a separate Video Format Transcoder (PAL-NTSC format Converter).

PAL-Compatible Countries / Regions
Australia, Austria, Belgium, Bulgaria, China, CIS, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Great Britain, Holland, Hong Kong, Hungary, India, Iran, Iraq, Kuwait, Libya, Malaysia, Mauritius, Norway, Romania, Saudi Arabia, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Syria, Thailand, Tunisia, etc.

NTSC-Compatible Countries / Regions
Bahamas, Canada, Central America, Japan, Mexico, Philippines, Korea, Taiwan, United States of America, etc.

# Troubleshooting

## *Self Diagnosis Display*

| Display | Informs that… | Action |
|---|---|---|
| Not enough free space | Not enough free space for saving files . | Check the space of internal memory or the external memory. |
| Corrupted file | The file is corrupted. | Delete the corrupted file. |
| Paper error | The paper is insufficient. | Check the paper in the printer. If there is no paper, insert the paper. |
| Ink error | Ink is low. | Check if the ink or toner is low. |
| File Error! | The file is wrong. | Check that the file is JPEG. |
| Communication Error! | The error is occurred while transferring data. | Disconnect the USB cable and connect it again. |
| Sleeping now... | Power saving mode works. | Press any button to return to previous menu. |
| Low battery | Battery is low. | Charge the Battery Pack or connect the AC Power Adapter. |
| Holding the key | The HOLD switch is locked. | Unlock the HOLD switch and operate the CAM. |
| Card error | The Memory Card is corrupted. | Format the Memory Card or replace it with new one. |
| Not formatted | Format the Memory Card. | Format the Memory Card. |
| Write error | Failed to write. | Check the memory space or format the memory. |
| Read error | Failed to read. | Delete the file. |
| Not supported format | The format is not supported. | The AVI or JPEG file that is not supported. Check the supported file. on page 29. |
| Write protected | Memory Card is protected to write. | Unlock the Memory Card. (except MMC) |
| MPEG decoding Error | The video file is corrupted. | Delete the corrupted file. |

❖ If these instructions do not solve your problem, contact your nearest Samsung dealer or authorized service centre/personnel.

| Symptom | Possible Causes | Measure |
|---|---|---|
| No power is supplied | The power is not connected properly<br>The battery is dead<br>The battery is too cold | Connect the AC Power Adapter properly, page 23<br>Replace the dead Battery Pack<br>Warm up the battery or move to warmer place |
| Date/Time is wrong | The Date/Time is not set | Set the Date/Time, pages 92-93 |
| Focus does not adjust automatically | Focus is set to manual mode<br>Recording was done in a dark place<br>Lens is covered with condensation | Set focus to AUTO<br>Use strobe or lit the place<br>Clear the lens and check the focus |
| The Memory Card will not load properly | The Memory Card is in wrong position<br>Something fills in the MUILTI CARD slot | Insert the Memory Card properly, page 33<br>Clear the MUILTI CARD slot |

# Troubleshooting

| Symptom | Possible Causes | Measure |
|---|---|---|
| Colour balance of picture is not natural | White balance adjustment is required | Set proper white balance, page 69 |
| Digital zoom does not work | The effect(Digital special effect) is applied | Turn off the effect(Digital special effect), page 54 |
| Files stored in the Memory Card cannot be deleted | Memory Card is protected<br>File is locked | Remove the protection tab of Memory Card (except MMC)<br>Remove the lock on the file, page 86 |
| Images on the LCD monitor appear dark | Ambient is too bright<br>Ambient temperature is too low | Adjust the brightness and angle of LCD<br>Low temperatures might produce a dark LCD display<br>This is not a malfunction |
| Rear of the LCD monitor is hot | Prolonged use of LCD monitor | Close the LCD monitor to turn if off,<br>or turn your device off to cool down |
| Play, rewind and fast forwarding do not work | The Photo Mode is selected | Select 'Video Mode' and select 'Play' |
| Memory Card cannot be played back (Photo mode) | The Video Mode is selected | Select 'Photo Mode' and select 'View' |
| No picture is taken when is fully pressed | Not enough free memory space is remained<br>Memory Card is formatted by different devices | Delete files from the Memory Card<br>Format the Memory Card on the CAM |
| Built-in Light will fire | Light is forced to cancel<br>Light is not available for recording | Select different Flash mode, page 67 |
| Cannot Record a video | The 'Photo Mode' is selected | Select 'Video Mode' |
| LCD monitor turns off | To save power consumption, the LCD monitor and CAM's power turns off if there is no button operation for a certain period of time (depending on operation mode), which is not a malfunctioning | Operating any button will turn the CAM on<br>Pressing the button once again will operate its function |

# Using the Menu

## Video

- 1. Record
- 2. Play
  - Delete: Selected / All / Cancel
  - Copy To: Selected / All / Cancel
  - Lock: Selected / All / Cancel
  - Multi Select: Close
  - PB Option: Selected / All / Cancel
- 3. Settings
  - Size: 720 / 352
  - Quality: Super Fine / Fine / Normal
  - Record Mode: TV / PC
  - Line In/Out: Out / In
  - Focus: AF / MF
  - EIS: On / Off
  - White Balance: Auto / Hold / Outdoor / Indoor
  - Program AE: Auto / Sports / Spotlight / Sand/Snow / HS Shutter
  - BLC: Off / On
  - Effect: Off / Art / Mosaic / Sepia / Negative / Mirror / B&W
  - Digital Zoom: Off / On
  - B.L. Auto Ctl: Off / On

## Photo

- 1. Capture
- 2. View
  - Delete: Selected / All / Cancel
  - Copy To: Selected / All / Cancel
  - Lock: Selected / All / Cancel
  - Multi Select: Close
  - DPOF
- 3. Settings
  - Size: 2400X1800 / 1600X1200 / 1024X768 / 640X480
  - Flash: Auto / On / Off
  - Focus: AF / MF
  - White Balance: Auto / Hold / Outdoor / Indoor
  - BLC: Off / On
  - B.L. Auto Ctl: Off / On

## MP3

- 1. Play
  - Delete: Selected / All / Cancel
  - Copy To: Selected / All / Cancel
  - Lock: Selected / All / Cancel
  - Random: Yes / No
  - Repeat: No / One / All

# Using the Menu

## Voice Recorder

- **1. Record**
- **2. Play**
- Delete
  - Selected
  - All
  - Cancel
- Copy To
  - Selected
  - All
  - Cancel
- Lock
  - Selected
  - All
  - Cancel

## File Browser

- **1. Delete**
  - Selected
  - All
  - Cancel
- **2. Copy To**
  - Selected
  - All
  - Cancel
- **3. Lock**
  - Selected
  - All
  - Cancel

## System Settings

- **1. Display**
  - LCD Brightness
    - 0%
    - ⋮
    - 100%
  - LCD Colour
    - 0%
    - ⋮
    - 100%
  - Back
- **2. Date/Time**
  - Set Time
  - Set Date
  - Date Format
    - YY/MM/DD
    - DD/MM/YY
    - MM/DD/YY
  - Time Format
    - 12 Hour
    - 24 Hour
  - Back
- **3. System**
  - Auto Shut off
    - 5 Minutes
    - Off
  - Demonstration
    - Off
    - 5 Minutes
    - Play Now
  - Start-up
    - Video Mode
    - Previous Mode
  - File No.
    - Reset
    - Series
  - Beep Sound
    - On
    - Off
  - Version Info
    - Close
  - Back
- **4. Memory**
  - Storage Type
    - Internal
    - External
  - Format
    - Internal
    - External
  - Memory Space
    - 000MB/000MB
  - Back
- **5. Language**
  - English / Español / Français / Português / Deutsch / Italiano / Nederlands / Polski / Русский / 한국어 / 中文 / Iran / Arab / Magyar / ไทย / Українська / Svenska

## USB Mode

- **1. Mass Storage**
- **2. PC-Cam**
- **3. PictBridge**
  - Date
    - Off
    - On
  - Copies
  - Print
  - Next Photo
  - Previous Photo

- The USB mode appears automatically when the USB cable is connected to the CAM.
- Memory Space takes the form of 0000MB/0000MB. (VP-M2200S(B) only)
- Memory Space takes the form of 000MB/493MB (VP-M2050S(B) only).

# Specifications

| Model Name | | VP-M2050S(B)/M2100S(B)/M2200S(B) |
|---|---|---|
| **The CAM System** | | |
| Video Recording System | | MPEG4 AVI Format |
| Photo System | | JPEG (DPOF, Exif 2.2) |
| MP3 | | Stereo Playing |
| Voice | | WAVE file record/play (8KHz Sampling, 16 bit, Stereo) |
| Memory | | Internal memory/Memory Stick/Memory Stick Pro/SD/MMC |
| Recording/Playing time | | Refer to page 30 |
| CCD Pixel | | 1/3.6 inch CCD, 2110K |
| Zoom Ratio | | x10(Optical), x100(Digital) |
| Focal Length | | f=4.1-41mm, F1.8-2.4 |
| Minimum Illumination | | 7 Lux |
| LCD Monitor | | 2.0" Trans Reflective, 210K |
| **Connectors** | | |
| USB | | Mini-B type (USB 2.0 High Speed) |
| The CAM Connector | | Special 22Pin Connector |
| Common Connector | Ear Phone | Ø3.5 Stereo |
| | AV Input/Output | Video (1.0Vp_p), Audio (-7.5dBm 47KΩ, Input:mono/Output:stereo) |
| DC Power In Connector | | Special 22Pin Connector |
| **General** | | |
| Operating Temperature | | 0°C-40°C |
| Operating Humidity | | 10%-80% |
| Power Source | | 3.8V (Li-Polymer Battery Pack), 4.8V (AC Power Adapter) |
| Power Consumption | | 3.7W (LCD ON)/3.1W(LCD OFF) |
| Dimension(WxHxD) | | 69.0mm x 103.5mm x 37.6mm |
| Weight | | 213g(Including the Lithium Polymer Battery Pack) |
| Built-in Microphone | | Omni-directional Stereo condenser microphone |

# Specifications

| AC Adapter | |
|---|---|
| Power Requirement | AC 100-240V, 50/60Hz |
| DC Output | DC 4.8V, 1.0A |
| Operating Temperature | 0°C-40°C(32°F-104°F) |
| Dimensions | 70mm x 30mm x 42mm |
| Weight | 104g (Including DC cable) |

These technical specifications and design may be changed without notice.

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## Power Sources (United Kingdom Only)

The plug used on this product is a unitary transformer plug and is designed specifically for this camcorder it must never be replaced or removed with any other type of plug.

# UNITED KINGDOM

# REPUBLIC OF IRELAND

This Samsung product is warranted for the period of twelve (12) months from the original date of purchase, against defective materials and workmanship. In the event that warranty service is required, you should return the product to the retailer from whom it was purchased.
However, Samsung Authorised Dealers and Authorised Service Centres in other EC Countries will comply with the warranty on the terms issued to purchasers in the country concerned. In case of difficulty, details of our Authorised Service Centres are available from:

**Samsung Electronics U.K. Ltd.**
**Unit C, Stafford Park 12**
**Telford, Shropshire**
**TF3 3BJ**
**The United Kingdom**
**Tel: 0870 242 0303, Fax: 01952 297617**
**www.samsung.co.uk**

■ WARRANTY CONDITIONS

1. The warranty is only valid if, when warranty service is required, the warranty card is fully and properly completed and is presented with the original invoice or sales slip or confirmation, and the serial number on the product has not been defaced.
2. Samsung's obligations are limited to the repair or, at its discretion, replacement of the product or the defective part.
3. Warranty repairs must be carried out by Authorised Samsung Dealers or Authorised Service Centres. No re-imbursement will be made for repairs carried out by non Samsung Dealers and, any such repair work and damage to the products caused by such repair work will not be covered by this warranty.
4. This product is not considered to be defective in materials nor workmanship by reason that it requires adaptation in order to conform to national or local technical or safety standards in force in any Country other than the one for which the product was originally designed and manufactured. This warranty will not cover, and no re-imbursement will be made for such adaptation nor any damage which may result.
5. This warranty covers none of the following:
   a) Periodic check ups, maintenance and repair or replacement of parts due to normal wear and tear.
   b) Cost relating to transport, removal or installation of the product.
   c) Misuse, including the failure to use this product for its normal purposes or incorrect installation.
   d) Damage caused by Lightning, Water, Fire, Acts of God, War, Public Disturbances, incorrect mains voltage, improper ventilation or any other cause beyond the control of Samsung.
6. This warranty is valid for any person who legally acquired possession of the product during the warranty period.
7. The consumers statutory rights in any applicable national legislation whether against the retailer arising from the purchase contract or otherwise are not affected by this warranty. Unless there is national legislation to the contrary, the rights under this warranty are the consumers sole rights and Samsung, its subsidiaries and distributors shall not be liable for indirect or consequential loss or any damage to records, compact discs, videos or audio taper or any other related equipment or material.

**SAMSUNG ELECTRONICS (U.K.) LTD.**

# ΕΛΛΑΣ (GREECE)

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Λ. Κρυονερίου 112
145 68 Κρυονέρι, Απικής

Τηλ. 210.629.3100

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   Η εγγύηση αυτή δεν καλύπτει αποζημιώσεις για:
   * Κεφαλές βίντεο και κασετοφώνων
   * Κεφαλές βιντεοκάμερας
   * Γεννήτριες ακτινών laser στα CD, DVD
   * Τηλεχειριστήρια
   * Λυχνίες φούρνων μικροκυμάτων
   * Προσαρμογές, μετατροπές ή ρυθμίσεις, ανεξάρτητα αν είναι επιτυχής ή ανεπιτυχής, ούτε οποιαδήποτε ζημία προέρχεται εξ αυτού...

5. Η εγγύηση αυτή δεν καλύπτει καμία από τις παρακάτω περιπτώσεις:
   * Περιοδικούς ελέγχους, συντήρηση και επισκευή ή αντικατάσταση μερών που οφείλονται σε φυσιολογική φθορά
   * Τα έξοδα και τους κινδύνους μεταφοράς που σχετίζονται με την εγγύηση αυτού του προιόντος
   * Ζημία σε αυτό το προιόν που προέρχεται από:
     Α. Κατάχρηση ή και κακή χρήση, συμπεριλαμβανομένης αλλά και μη περιορισμένης σε:
     Μη χρήση αυτού του προιόντος για τους σκοπούς που φυσιολογικά προορίζεται ή σύμφωνα με τις οδηγίες χρήσεως για την σωστή χρήση και συντήρηση αυτού του προιόντος
     Την εγκατάσταση και χρήση του προιόντος με τρόπους που αντίκεινται στις τεχνικές προδιαγραφές ασφαλείας που ισχύουν κατά την χρήση του προιόντος
     Β. Επισκευή που έγινε από μη εξουσιοδοτημένα συνεργεία service
     Γ. Ατυχήματα, θεομηνίες ή οποιαδήποτε αιτία πέρα του ελέγχου της SAMSUNG, συμπεριλαμβανομένων αλλά μη περιορισμένων των κεραυνών, του νερού, της φωτιάς, των δημοσίων αναταραχών, του κακού αερισμού κλπ.

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